

ArcelorMittal Burns Harbor, LLC.
Flat Carbon Steel



CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Indiana Department of Environmental Management
Cashier's Office - Mail Code 50-10C
100 North Senate Avenue
Indianapolis, IN 46204-2251

Mr. Richard Hamblin
Indiana Department of Environmental Protection
Office of Water Quality/Permitting Branch
100 N Senate Ave IGCN 1255
Indianapolis, IN 46204

August 27, 2015
Ref: PF/NPDES/PER

Subject: NPDES Permit No. IN0000175 Renewal Application
ArcelorMittal Burns Harbor LLC

Dear Mr. Hamblin,

Enclosed are a completed application package for renewal of the subject permit and a check in the amount of \$50.00 for the application fee. This application is being submitted at least 180 days in advance of the subject permit's expiration date (February 29, 2016). The enclosed renewal NPDES permit application meets all IDEM and U.S. EPA requirements and should be administratively and technically complete.

We would like to call to your attention the following items that could have a bearing on the renewal NPDES permit:

1. Modified Section 301(g) Variance for Ammonia-N at Outfall 001

ArcelorMittal filed a request with IDEM for modification of the Section 301(g) variance effluent limits for ammonia-N at Outfall 001 in July 2012. The proposed modified effluent limits are, for the most part more stringent than the current Section 301(g) variance limits and would greatly simplify the NPDES permit in terms of the number of periodic effluent limits, compliance reporting and compliance tracking by IDEM. We understand that IDEM is in substantial agreement with ArcelorMittal's proposed modified Section 301(g) effluent limits and request the modified effluent limits be included in the draft renewal NPDES permit that



ArcelorMittal

IDEM sets out for public review and comment. This would likely require EPA Region 5 review of the Section 301(g) variance request prior to public notice of the draft NPDES permit.

2. Continuance of Monitoring Waivers for Naphthalene and Tetrachloroethylene

The current NPDES permit contains monitoring waivers at Outfall 011 for naphthalene and tetrachloroethylene pursuant to 40 CFR §122.44(a)(2). The conditions under which the monitoring waivers were initially granted have not changed, and the NPDES permit application sampling data for Outfall 011 demonstrate that naphthalene and tetrachloroethylene are not detectable at low (microgram per Liter or ug/L) analytical detection levels. ArcelorMittal requests that monitoring waivers for naphthalene and tetrachloroethylene be continued in the renewal NPDES permit.

3. Section 316(a) Alternate Temperature Effluent Limits for Outfalls 001 and 002

The current NPDES permit contains temperature limits at Outfalls 001 and 002 based on a 316(a) variance originally issued in 1988. As noted in the fact sheet for the issuance of the 2011 NPDES permit renewal, there has not been any indication that the thermal component from these outfalls is causing any adverse impact on aquatic life. Therefore, ArcelorMittal requests that the thermal effluent limits from the existing NPDES permit be continued in the renewed permit until such time that a new 316(a) variance is approved.

ArcelorMittal provided IDEM with a preliminary work plan for Type III thermal discharge demonstrations for alternate temperature effluent limits at Outfalls 001 and 002 on June 3, 2015, and has initiated discussions with IDEM regarding the proposed work plan. We anticipate an approvable work plan will be developed over the next few months such that the work plan can be implemented under a compliance schedule in the renewal NPDES permit.

4. Section 316(b) Cooling Water Intake Requirements

ArcelorMittal conducted impingement and entrainment studies at its Lake Michigan water intakes pursuant to the current NPDES permit during the period June 2012 to May 2014. The cost of the studies was approximately \$300,000. The report of the studies was submitted to IDEM on March 23, 2015. The study results demonstrate that the impingement standard at 40 CFR §122.95 is met (intake velocity less than 0.5 feet per second); and, that observed entrainment meets the Best Technology Available (BTA). IDEM has advised the study report is under review. ArcelorMittal requests the renewal NPDES permit be issued with a finding that the Burns Harbor Lake Michigan intakes meet BTA for impingement and entrainment and that no requirements for additional impingement and entrainment be included in the renewal NPDES permit.

5. Appeal of Outfall 111 NPDES Permit Effluent Limit for 2,3,7,8-TCDF

ArcelorMittal appealed imposition of the technology based effluent for 2,3,7,8-tetrachlorodibenzofuran (2,3,7,8-TCDF) from 40 CFR Part 420 for sinter plants with wet air pollution controls at new internal Outfall 111 in the current NPDES permit. That appeal is pending. Because the technology based effluent limit for 2, 3, 7, 8,-TCDF is based on a federal categorical effluent limitation guideline, IDEM advised that



ArcelorMittal

ArcelorMittal review the issue under appeal with U.S. EPA Region 5. ArcelorMittal has been conducting discussions with U.S. EPA Region 5. In the event the appeal is resolved prior to time the draft renewal NPDES permit is put on public notice, ArcelorMittal requests the result of the appeal be included in the draft renewal NPDES permit.

Thank you for carefully considering the enclosed renewal NPDES permit application for the Burns Harbor Plant. We look forward to working with you and others at IDEM to develop a renewal NPDES permit that is both protective of the East Branch of the Little Calumet River and the East Arm of Burns Waterway Harbor and reasonable for the Burns Harbor Plant.

If there are any questions concerning this matter, please contact T. E. Kirk or me at (219) 787-2712.

Very truly yours,

R. A. Maciel,
Environmental Manager

Enclosures

cc: w/o Enclosures
Doug Bley, Manager Water Programs
Paul Higginbotham, IDEM
Stanley Rigney, IDEM
Gary Amendola, Amendola Engineering, Inc.



ArcelorMittal

ArcelorMittal Burns Harbor LLC

250 West U.S. Highway 12
Burns Harbor, IN 46304

NPDES Permit Renewal Application

NPDES Permit No. IN0000175

August 2015

Prepared by:

**AMENDOLA
ENGINEERING
INC.**

**Amendola Engineering, Inc.
Lakewood, OH**

TABLE OF CONTENTS

FORMS

IDENTIFICATION OF POTENTIALLY AFFECTED PARTIES

IDEM REQUEST FOR INFORMATION FORM

OWNER/OPERATOR AFFIDAVIT TO DETERMINE APPROPRIATE PERMITTEE

IDEM NPDES APPLICATION GENERAL INFORMATION FORM

IDEM NPDES APPLICATION FORM 2C

IDEM NPDES APPLICATION FORM 2F

FIGURES

FIGURE 1 TOPOGRAPHIC AREA MAP

FIGURE 2 WATER FLOW LINE DIAGRAM

FIGURES 3A AND 3B STORM WATER DRAINAGE MAPS

ATTACHMENTS

ATTACHMENT 1 FORM 2C ITEM II. (FLOWS, SOURCES OF POLLUTANTS, TREATMENT TECHNOLOGIES)

ATTACHMENT 2 PRODUCTION RATES AND CALCULATION OF TECHNOLOGY-BASED EFFLUENT LIMITS

ATTACHMENT 3 NPDES PERMIT RENEWAL APPLICATION SAMPLING DATA

OUTFALL 001

OUTFALL 002

OUTFALL 011

INTAKE

STORM EVENT SAMPLING RESULTS OUTFALLS 001 AND 002

RECEIVING WATER

ATTACHMENT 4 SUMMARY OF ROUTINE NPDES PERMIT MONITORING DATA

ATTACHMENT 5 ARCELORMITTAL BURNS HARBOR DRAINAGE AREA AND IMPERVIOUS SURFACE AREA
(SWPPP TABLE 1)

ATTACHMENT 6 NON-STORM WATER DISCHARGE EVALUATION
(SWPPP TABLE 2)

TABLE OF CONTENTS (CONTINUED)

APPENDICES

APPENDIX A LIST OF WATER TREATMENT ADDITIVES & CHEMICALS

FORMS

IDENTIFICATION OF POTENTIALLY AFFECTED PARTIES

IDEM REQUEST FOR INFORMATION FORM

OWNER/OPERATOR AFFIDAVIT TO DETERMINE APPROPRIATE PERMITTEE

IDEM NPDES APPLICATION GENERAL INFORMATION FORM

IDEM NPDES APPLICATION FORM 2C

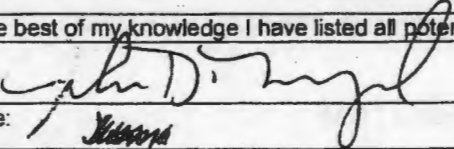
EPA NPDES APPLICATION FORM 2F

I. Identification of Potentially Affected Persons

Please list here any and all persons whom you have reason to believe have a substantial or proprietary interest in this matter, or could otherwise be considered to be potentially affected under the law. Failure to notify any person who is later determined to be potentially affected could result in voiding our decision on procedural grounds. To ensure conformance with AOPA and to avoid reversal of a decision, please list all such parties. The letter attached to this form will further explain the requirements under the AOPA. Attach additional names and addresses on a separate sheet of paper, as needed. Please indicate below the type of action you are requesting.

Name: Allegius Federal Credit Union	Name: Tecumseh Redevelopment, Inc.
Street address: 244 Ridge Road	Street address: 4020 Kinross Lakes Parkway
City/State/ZIP code: Chesterton, IN 46304	City/State/ZIP code: Richfield, OH 44286-9000
Name: Consolidated Rail Corporation	Name: Indiana American Water Company
Street address: 1818 Market Street	Street address: 650 Madison Ave.
City/State/ZIP code: Philadelphia, PA 19103	City/State/ZIP code: Gary, IN 46401
Name: Indiana Dept. of Transportation	Name: Indiana Port Commission, Burns Harbor International
Street address: P.O. Box 429	Street address: 6600 U.S. Highway 12
City/State/ZIP code: LaPorte, IN 46352	City/State/ZIP code: Chesterton, IN 46304
Name: NICTD	Name: Norfolk Southern Corporation
Street address: 33 East U.S. Highway 12	Street address: 17301 Michigan Ave.ue
City/State/ZIP code: Chesterton, IN 46304	City/State/ZIP code: Dearborn, MI 48126
Name: Porter County Commissioners	Name: Save the Dunes, Inc.
Street address: 155 Indiana Avenue, Suite 205	Street address: 444 Barker Road
City/State/ZIP code: Valparaiso, IN 46383	City/State/ZIP code: Michigan City, IN 46360
Name: Town of Burns Harbor, James McGee, Town Council Pre	Name: Northern Indiana Public Service Company
Street address: 1240 North Boo Road	Street address: 801 East 86th Avenue
City/State/ZIP code: Burns Harbor, IN 46304	City/State/ZIP code: Merrillville, IN 46410
Name: U.S. Steel Midwest Division	Name: City of Portage, ATTN: Mr. James Snyder, Mayor
Street address: U.S. Highway 12	Street address: 6070 Central Avenue
City/State/ZIP code: Portage, IN 46368	City/State/ZIP code: Portage, IN 46368
Name: The Northwest Indiana Times	Name: The Chesterton Tribune
Street address: 601 45th Avenue	Street address: 193 Calumet Road
City/State/ZIP code: Munster, IN 46321	City/State/ZIP code: Chesterton, IN 46304
Name: The Gary Post Tribune	Name: United States of America, National Park Service
Street address: 1433 East 83rd Avenue	Street address: Attn: Mr. Dan Betts, 601 Riverfront Drive,
City/State/ZIP code: Merrillville, IN 46410	City/State/ZIP code: Omaha, NE 68102
Name:	Name:
Street address:	Street address:
City/State/ZIP code:	City/State/ZIP code:

II. Please complete this form by signing the following statement.

I certify to the best of my knowledge I have listed all potentially affected parties, as defined by IC 4-21.5.		
Signature: 		
Printed name: John Mengel	Date: 8/27/2015	
Facility name: ArcelorMittal Burns Harbor LLC		
Facility address: 250 West Highway 12		
Facility city: Burns Harbor	Facility state: IN	ZIP code: 46304

III. Type of Action (check one)

- ☒ NPDES Permit-327 IAC 5
☐ Pretreatment Permit -327 IAC 5
☐ Construction Permit-327 IAC 3

A \$50.00 fee is required for a New permit, a Renewal or a Modification; If this is a renewal or modification request, Include NPDES permit No. on check and return to:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Cashiers Office – Mail Code 50-10C
100 North Senate Avenue
Indianapolis, IN 46204-2251

If No Fee Is Required (Fee has previously been paid), Return To:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Office of Water Quality – Mail Code 65-42
Room N1255
Permits Branch
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

REQUEST FOR INFORMATION

We request that you fill in the blanks on this form and return it along with your NPDES PERMIT application. The information provided will be helpful in our personal contact with officials of your municipality, industry or other facility in assuring prompt delivery of correspondence, etc. Thank you for your cooperation.

- I. Current NPDES Permit Number IN0000175
(New applicants will be assigned a number later)

II. WASTEWATER TREATMENT FACILITY LOCATION ADDRESS

Name of Facility: ArcelorMittal Burns Harbor LLC
Address: 250 West Highway 12
City: Burns Harbor State: IN ZIP code: 46304
Telephone: 219-787-4961 E-mail: Robert.Maciel@arcelormittal.com

III. DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS
(ADDRESS WHERE IDEM IS TO SEND PRE-PRINTED DMRS)

Name: Cliff Barnett Title: Senior Environmental Engineer
Address: 250 West Highway 12
City: Burns Harbor State: IN ZIP code: 46304
Telephone: 219-787-3014 E-mail: Cliff.Barnett@arcelormittal.com
Cognizant Official (Representative responsible for completing DMR):
John Mengel Title: Vice President / General Manager

IV. OWNER ADDRESS

Name of Owner: ArcelorMittal Burns Harbor LLC Title: Not applicable
Address: 250 West Highway 12
City: Burns Harbor State: IN ZIP code: 46304
Telephone: 219-787-4961 E-mail: Robert.Maciel@arcelormittal.com

V. WASTEWATER TREATMENT PLANT OPERATOR/SUPERINTENDENT ADDRESS

Name of Operator: Patrick M. Gorman, P.E. Certificate Number WW009310 (industrial)
Address: 9132 Indianapolis Boulevard
City: Highland State: IN ZIP code: 46322
Telephone: Work: 219-836-1000 E-mail: patrick.gorman@eptconsultants.com

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OWNER/OPERATOR AFFIDAVIT TO DETERMINE THE APPROPRIATE
NPDES PERMITTEE(S)

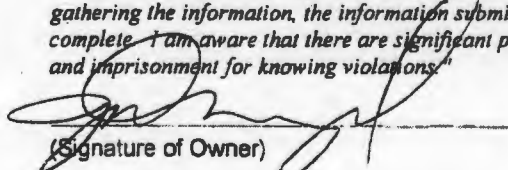
327 IAC 5-2-3(c) requires the operator to apply for and obtain the NPDES permit for the NPDES discharge, unless the operator is an employee of the owner of the facility (in which case it is the owner's responsibility to apply for and obtain the NPDES permit). This is consistent with the federal regulations at 40 CFR 122.21(b). Additionally, pursuant to 327 IAC 5-2-6(c), the permittee is required to notify the IDEM if there is a change in either the ownership or the operation of the wastewater treatment plant.

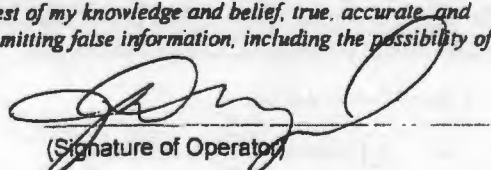
When an NPDES permittee contracts with a private firm to operate its wastewater treatment plant, and the contractual agreement is one in which the private entity is not an employee of the owner, the permit should be issued to the private firm. Some contractual arrangements may have been made without knowledge of this rule requirement, and the contract may not have been adequately set up to reflect the private firm as the sole permittee. Or the private contractor may not want to be the sole permittee. Therefore, in such instances EPA has suggested that the permit be issued to both the owner and to the private contractor, as co-permittees.

In order to help us to determine who should be listed on the NPDES permit as the permittee(s), please complete the following information:

1. Name of Facility: ArcelorMittal Burns Harbor LLC
2. NPDES Permit Number: IN0000175
3. Name of Owner: ArcelorMittal Burns Harbor LLC
(individual or legal business name)
Mailing Address of Owner: 250 West Highway 12, Burns Harbor, IN 46304
4. Name of Operator: ArcelorMittal Burns Harbor LLC
(individual or legal business name)
Mailing Address of Operator: 250 West Highway 12, Burns Harbor, IN 46304
5. Is the operator an employee of the owner? ☐ YES ☒ NO
6. If the answer to #5 is "No", is the operator willing to be the sole permittee?
☒ YES ☐ NO ☐ N/A
7. If the answer to #6 is "No", the NPDES permit will be issued to both the owner and operator as co-permittees.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."


(Signature of Owner)


(Signature of Operator)

Please complete this form and return it to the IDEM, Office of Water Quality, Municipal NPDES Permits
Section 100 North Senate Ave.
Indianapolis, IN 46204

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

GENERAL INFORMATION FORM

(TO BE SUBMITTED WITH FORMS 2C, 2D AND 2E)

(Replaces EPA General Form 1)

State Form 51952 (R / 4-12)

1. Name of Facility: ArcelorMittal Burns Harbor LLC

2. Facility Contact

Name: Robert Maciel Manager, Environmental

Address: 250 West Highway 12

City or Town: Burns Harbor State: IN ZIP Code: 46304

County: Porter

Telephone: Work: (219) 787 - 4961 Email: Robert.Maciel@arcelormittal.com

3. Certified Operator

Name: Patrick M. Gorman

Certification Number: WW009512 Classification: Class D

Address: 9132 Indianapolis Boulevard

City or Town: Highland State: IN ZIP Code: 46322

Telephone: Work: (219) 836 - 1000 Email: patrick.gorman@eptconsultants.com

4. Facility Mailing Address

Street or P.O. Box: 250 West Highway 12

City or Town: Burns Harbor State: IN ZIP Code: 46304

5. Facility Location

Street, Route Number, County, Other Specific Identifier:

250 West Highway 12, Burns Harbor, IN

6. Type of Permit Action:

☐ New ☒ Renewal ☐ Modification

7. EPA Identification Number: IND003913423

8. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the state? (Form 2B)

☐ Yes ☒ No ☐ Form Attached

9. Is this a facility which currently results in discharges to waters of the state other than described in 8? (Form 2C-Process Wastewater or Form 2E-Nonprocess Wastewater)

☒ Yes ☐ No ☐ Form Attached

10. Is this a proposed facility (other than described in 8) which will result in a discharge to waters of the state? (Form 2D)

☐ Yes ☒ No ☐ Form Attached

11. SIC Codes (4-digit, in order of priority)

First: 3312 Specify: Integrated Steel Mill
Second: _____ Specify: _____
Third: _____ Specify: _____
Fourth: _____ Specify: _____

12. Existing Environmental Permits (Identification number)

NPDES (Discharges to Surface Waters): IN0000175

UIC (Underground Injection of Fluids): IN-127-1W-0001, 0003, 0004, 0007

RCRA (Hazardous Wastes): IND003913423

PSD (Air Emissions from Proposed Sources): see below

Other: Title V Specify: T127-31788-00001

Other: _____ Specify: _____

13. Nature of Business (Provide a Brief Description)

14. Map

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluid underground. Include all springs, rivers and other surface water bodies in the map area.

15. Signature Block:

This application must be signed by a person in responsible charge to be valid. This signature attests to the following:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

John Mengel

Vice President and General Manager

Printed Name

Title

Signature

Date Signed (month, day, year)

Return Completed Application, Fee and Associated Materials to:
Indiana Department of Environmental Management
Cashiers Office - Mail Code 50-10C
100 North Senate Avenue
Indianapolis, Indiana 46204-2251



EPA Identification Number (copy from Item 1 of Form 1)
IND003913423

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☒ YES (complete the following table) ☐ NO (go to Section III)

1. OUTFALL NUMBER	2. OPERATION(s) CONTRIBUTING FLOW	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK <i>(specify average)</i>	b. MONTHS PER YEAR <i>(specify average)</i>	a. FLOW RATE <i>(in mgd)</i>		b. TOTAL VOLUME <i>(specify with units)</i>		c. DUR- ATION <i>(in days)</i>
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2 MAXIMUM DAILY	
001	Water cannon use for Outfall 001 effluent temperature control							

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ YES (complete Item III-B) ☐ NO (go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?

☒ YES (complete Item III-C) ☐ NO (go to Section IV)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guidelines, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS (list outfall numbers)
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	

IV. IMPROVEMENTS

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in the application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (complete the following table) ☒ NO (go to Section II')

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COM- PLIANCE DATE	
	a. NO	b. SOURCE OF DISCHARGE		a. RE- QUIRED	b. PRO- JECTED

B. Optional : You may attach additional sheets describing any additional water pollutant control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. ☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA Identification Number (copy from Item 1 of Form 1)
IND003913423

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding - Complete one set of tables for each outfall - Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-10.

D. Use the space below to list any of the pollutants listed in Table 2C-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
None			

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☒ YES (list all such pollutants below)

☐ NO (go to Item VI-B)

Zinc is part of the manufacturing process at the hot dip galvanizing line. Other metals listed in Part V.C. may be present in trace quantities in raw materials and intermediate and final products.

The polynuclear aromatic hydrocarbons (PAHs) are a component of by-products produced in the cokemaking process. Cokemaking process wastewaters are not discharged to waters of the state.

Analyses of the facility's discharges for the metals and PAHs listed in Part V.C. are provided in Attachments 3 and 4.

EPA Identification Number (copy from Item I of Form I)
IND003913423

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☒ YES (identify the test(s) and describe their purpose below)

☐ NO (go to Section VIII)

Toxicity testing has been conducted at Outfall 001 under the terms of the effective NPDES permit.

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analysis reported in Item V performed by a contract laboratory or consulting firm?

☒ YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

☐ NO (go to Section IX)

A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANT ANALYZED
Microbac Laboratories, Inc.	250 West 84th Drive Merrillville, IN 46410	1-219-769-8378	All

IX. CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

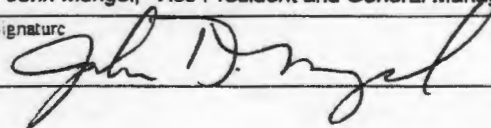
A. Name & Official Title (type or print)

John Mengel, Vice President and General Manager

B. Telephone Number (area code)

219-787-3270

C. Signature



D. Date Signed (month, day, year)

8/27/2015

EPA Identification Number (copy from Item 1 of Form 1)
IND003913423

V. INTAKE AND EFFLUENT CHARACTERISTICS (Continued from page 3)

OUTFALL NO. 001, 002, 009, 011, Intake

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT						3. UNITS (specify if blank)	4. INTAKE (optional)		5. ANALYTICAL METHOD (list method used and detection limit achieved by lab.)					
	a. Maximum Daily Values		b. Maximum 30 Day Values (if available)		c. Long Term Average (if available)			d. No. of Analysis	a. Concentration	b. Mass	a. Long Term Average Value (if available)		b. No. of Analysis	a. Method	b. Detection Limit
	(1)	(2)	(1)	(2)	(1)	(2)					(1)	(2)			
	Concentration	Mass	Concentration	Mass	Concentration	Mass					Concentration	Mass			
a. Biochemical Oxygen Demand, Carbonaceous Cas No. E10106															
b. Escherichia coli (E-coli - units in count/100ml) Cas No. I-1000															
Fecal coliform (units in count/100 ml) Cas No. I-1000															
Chemical Oxygen Demand (COD) Cas No. E10107															
Dissolved Oxygen (DO) Cas No. E-14539															
Total Dissolved Solids (TDS) Cas No. E-10173															
Total Organic Carbon (TOC) Cas No. E-10195															
Total Suspended Solids (TSS) Cas No. E-10162															
Ammonia (as N) Cas No. 7664-41-7															
Flow	VALUE		VALUE		VALUE					VALUE					
Temperature (Winter) (Cent.) Cas No. E-14540	VALUE		VALUE		VALUE			EC		VALUE					
Temperature (Summer) (Cent.) Cas No. E-14540	VALUE		VALUE		VALUE			EC		VALUE					
Hardness, Total (as CaCO3) Cas No. E-11778															
pH (S.U.) Cas No. E-10139	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM				STANDARD UNITS							

Continued from the Front

IV. Narrative Description of Pollutant Sources

- A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Impervious Area (provide units)	Total Area Drained (provide units)	Outfall Number	Impervious Area (provide units)	Total Area Drained (provide units)
----------------	---------------------------------	------------------------------------	----------------	---------------------------------	------------------------------------

Attachment 5 to this application is Table 1 of the plant's Storm Water Pollution Prevention Plan that contains the drainage area and impervious surfaces for ArcelorMittal Burns Harbor.

- B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas; and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

Potential storm water pollution sources are discussed in Section 3.0 of the plant's Storm Water Pollution Prevention Plan.

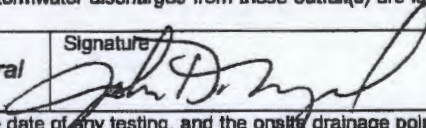
- C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1
----------------	-----------	----------------------------

Structural and non-structural control measures are discussed in Sections 4.0 and 5.0 of the plant's Storm Water Pollution Prevention Plan.

V. Non Stormwater Discharges

- A. I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharges from these outfall(s) are identified in either an accompanying Form 2C or Form 2E application for the outfall.

Name of Official Title (type or print) John Mengel, Vice President and General Manager	Signature 	Date Signed 8/27/2015
--	---	---------------------------------

- B. provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

From August 2011 to December 2011, the different areas of ArcelorMittal Burns Harbor were evaluated for the presence of non-storm water discharges. These evaluations are documented in Table 2 of the plant's SWPPP. This table is attached as Attachment 6 to this application. Non-storm water discharges are identified on the attached Form 2C (see Attachment 1 to this application).

VI. Significant Leaks or Spills

- Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

**09/18/12: Coal tar spill at tar loading station to asphalt, soil and coal bed; 417 gallons
12/10/12: Crystallizer solution spill at Crystallizer Building to soil, 300 gallons
08/24/14: Coal tar spill at Decanter (Substation 107) to asphalt/gravel, 160 gallons
03/03/15: Waste Ammonia Liquor at Waste Ammonia Liquor Well No. 2 to soil, 200 gallons estimate**

VII. Discharge Information

A,B,C, & D: See instruction before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided. Tables VII-A, VII-B, and VII-C are included on separate sheets numbered VII-1 and VII-2.

E. Potential discharges not covered by analysis - Is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☒ Yes (list all such pollutants below)

☐ No (go to Section IX)

The metals listed in Tables 2F-2 and 2F-3 may be present raw materials and intermediate and final products. Zinc is used at the Hot Dip Coating Line. The polynuclear aromatic hydrocarbons listed in Table 2F-4 are components of by-products produced at the Coke Plant. Outfalls 001 and 002 have been sampled during rain events per the IDEM storm water sampling instructions. The data are contained in Attachment 3.

VIII. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☒ Yes (list all such pollutants below)

☐ No (go to Section IX)

Toxicity testing has been conducted at Outfall 001 under terms of the effective NPDES permit.

IX. Contact analysis Information

Were any of the analysis reported in item VII performed by a contact laboratory or consulting firm?

☒ Yes (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

☐ No (go to Section X)

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
Microbac Laboratories, Inc.	250 West 84 th Drive Merrillville, IN 46410	1-219-769-8378	All

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

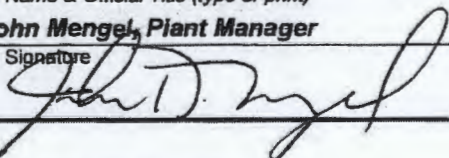
A. Name & Official Title (type or print)

John Mengel, Plant Manager

B. Area Code and Phone No.

219-787-3270

C. Signature



D. Date Signed

8/27/2015

FIGURES

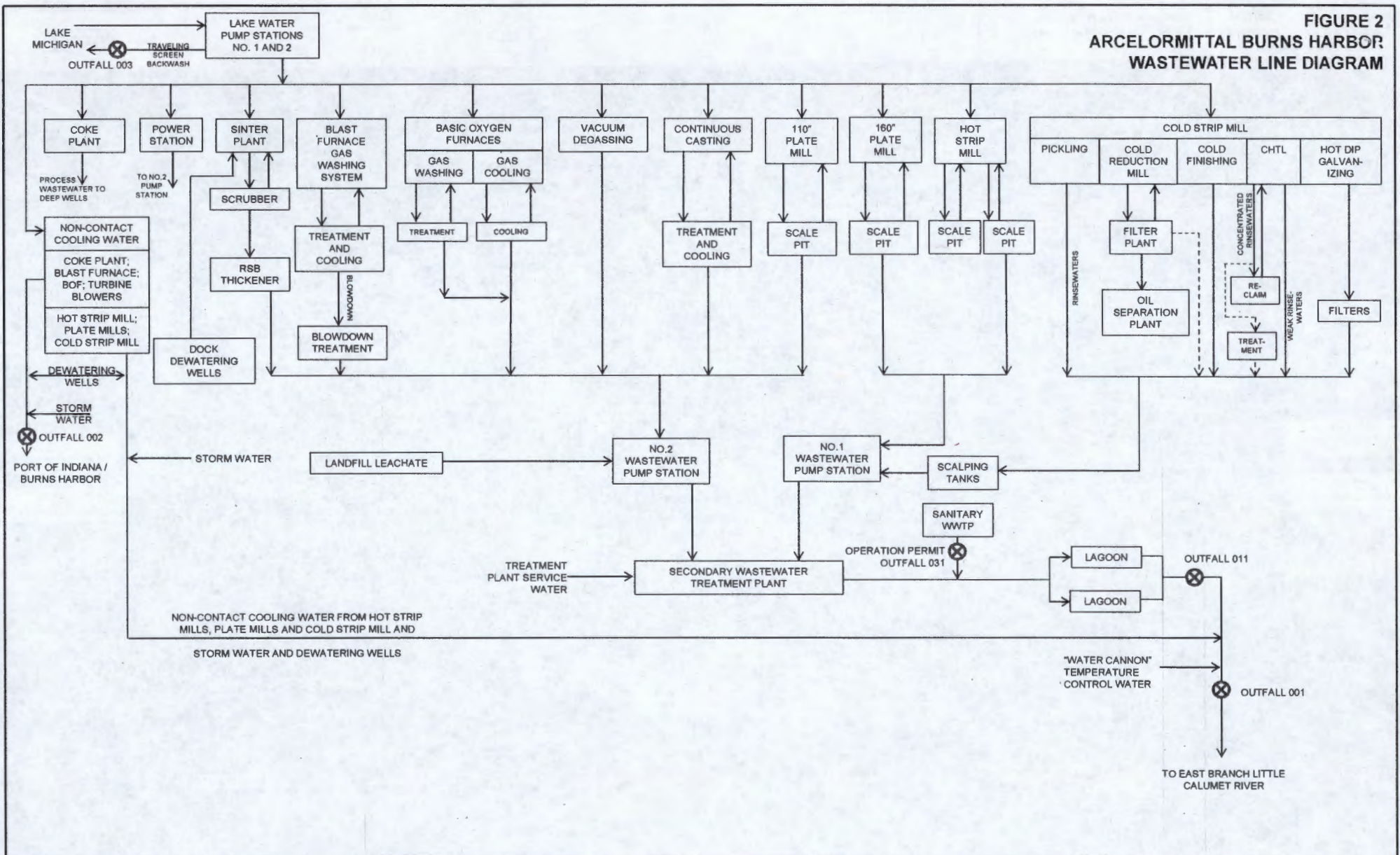
FIGURE 1 - TOPOGRAPHIC AREA MAP

FIGURE 2 - WATER FLOW LINE DIAGRAM

FIGURES 3A AND 3B - STORM WATER DRAINAGE MAPS



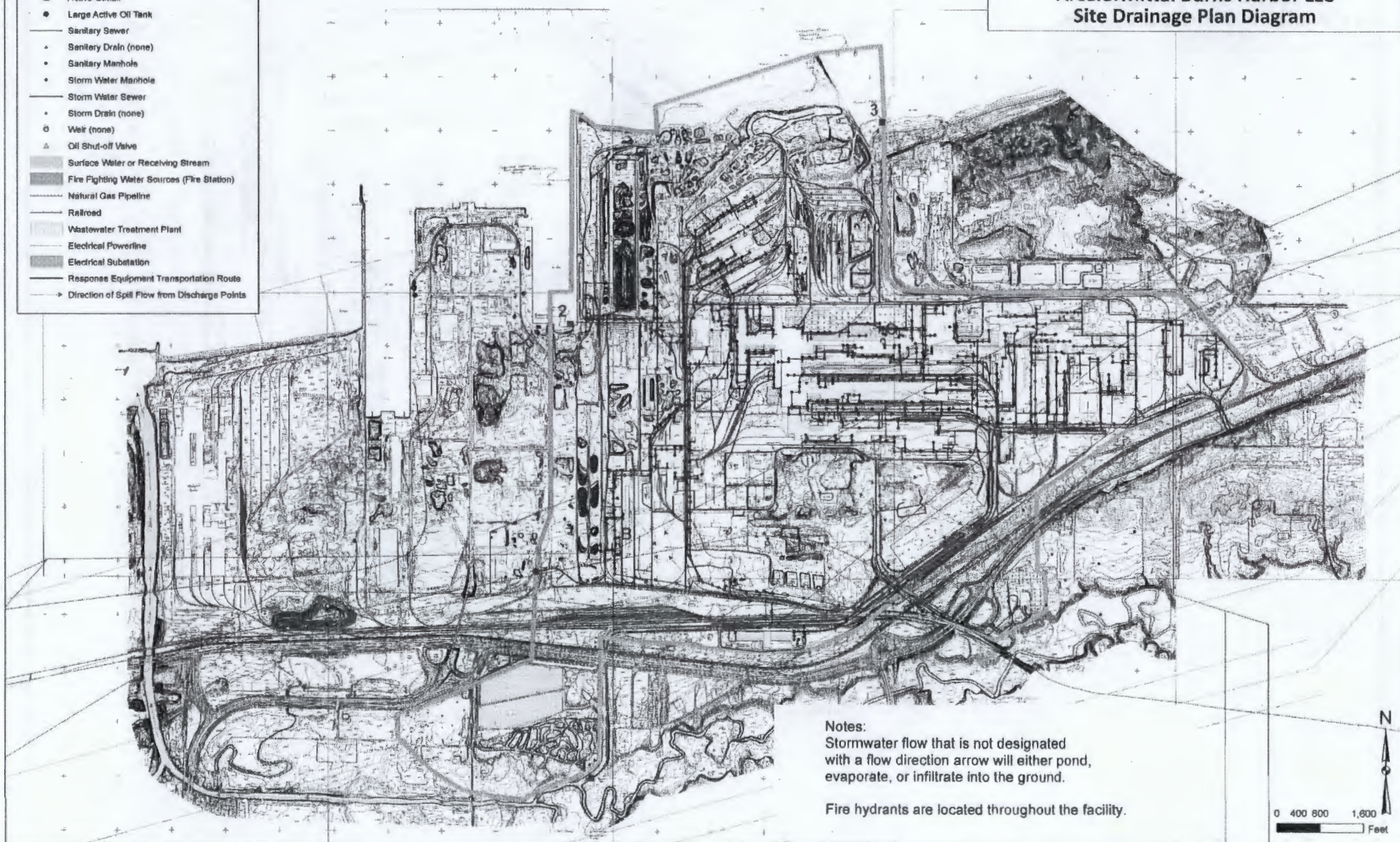
FIGURE 2
ARCELORMITTAL BURNS HARBOR
WASTEWATER LINE DIAGRAM



Legend

- Active Outfall
- Large Active Oil Tank
- Sanitary Sewer
- Sanitary Drain (none)
- Sanitary Manhole
- Storm Water Manhole
- Storm Water Sewer
- Storm Drain (none)
- Weir (none)
- △ Oil Shut-off Valve
- ▨ Surface Water or Receiving Stream
- ▨ Fire Fighting Water Sources (Fire Station)
- Natural Gas Pipeline
- Railroad
- ▨ Wastewater Treatment Plant
- Electrical Powerline
- ▨ Electrical Substation
- Response Equipment Transportation Routes
- Direction of Spill Flow from Discharge Points

FIGURE 3A
ArcelorMittal Burns Harbor LLC
Site Drainage Plan Diagram



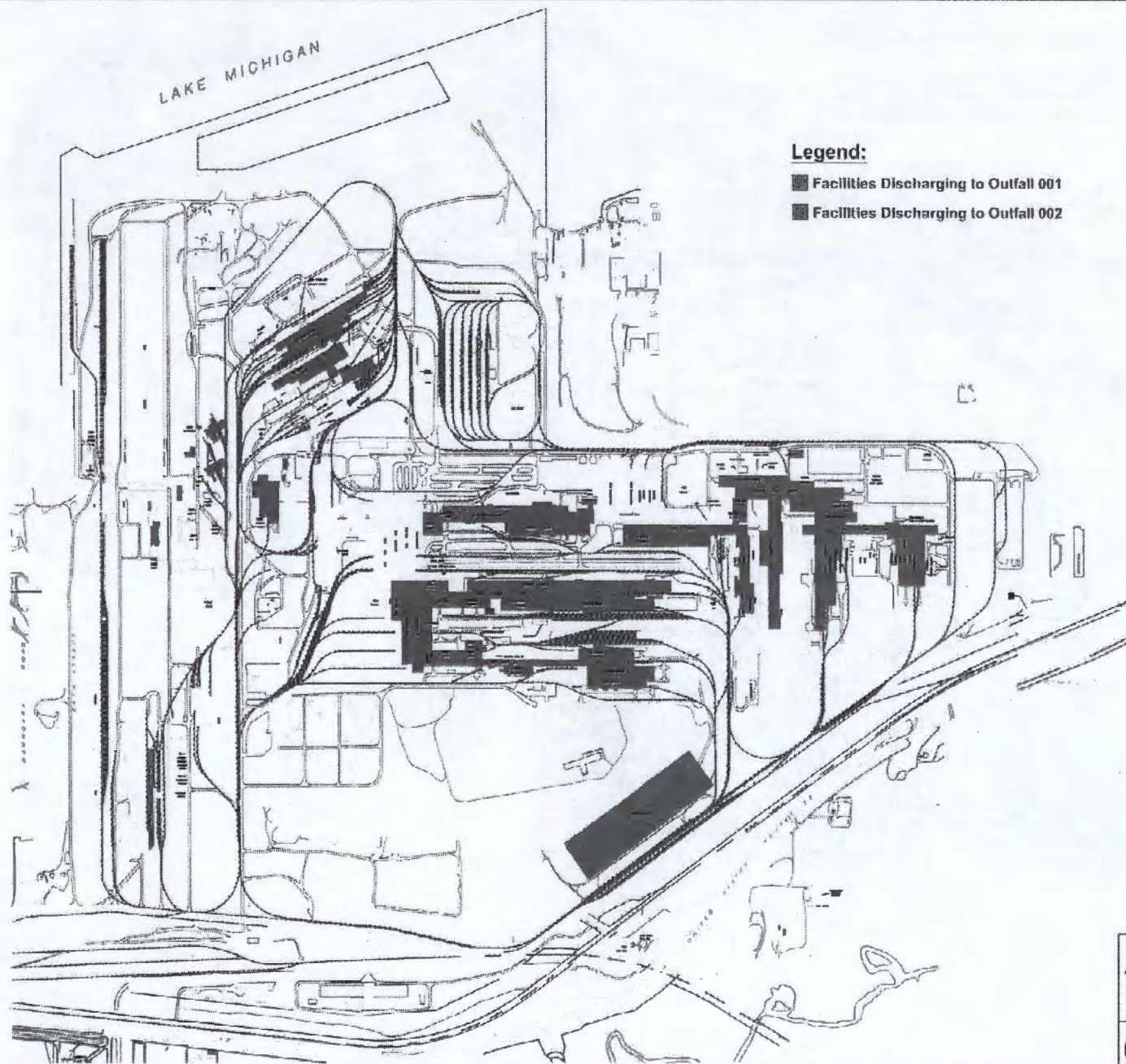


FIGURE 3B
ARCELORMITTAL BURNS HARBOR, LLC
 NPDES Permit Renewal Application
 Stormwater Disposition by Outfall

 **OCS Environmental, Inc.**
 1301 Louisa Street, Suite 1
 Portia, Indiana 46381
 Phone - (219) 953-1400
 Fax - (219) 953-1414

ATTACHMENTS

ATTACHMENT 1 - FORM 2C ITEM II. (FLOWS, SOURCES OF POLLUTANTS, TREATMENT TECHNOLOGIES)

ATTACHMENT 2 - PRODUCTION RATES AND CALCULATION OF TECHNOLOGY-BASED EFFLUENT LIMITS

ATTACHMENT 3 - NPDES PERMIT RENEWAL APPLICATION SAMPLING DATA

OUTFALL 001

OUTFALL 002

OUTFALL 011

INTAKE

STORM EVENT SAMPLING RESULTS OUTFALLS 001, 002

ATTACHMENT 4 - SUMMARY OF ROUTINE NPDES PERMIT MONITORING DATA

ATTACHMENT 5 - ARCELORMITTAL BURNS HARBOR DRAINAGE AREA AND IMPERVIOUS SURFACE AREA (SWPPP TABLE 1)

ATTACHMENT 6 - NON-STORM WATER DISCHARGE EVALUATION (SWPPP TABLE 2)

Attachment 1
ArcelorMittal Burns Harbor NPDES Permit Renewal Application

Form 2C – Part II. FLOWS, SOURCES OF POLLUTANTS, TREATMENT TECHNOLOGIES

A description of each outfall is provided below followed by a general description of wastewater treatment provided at ArcelorMittal Burns Harbor. A water line diagram is provided as Figure 2.

Outfall 001

The discharge from Outfall 001 consists of treated wastewater from Secondary Wastewater Treatment Plant (Outfall 011), non-contact cooling water, storm water and Lake Michigan water used for cooling of the discharge (i.e., the water cannon).

Long Term Average Flowrate: 119 mgd, (January 2011 to July 2015)

Maximum Monthly Average Flow Rate: 135 mgd, (January 2011 to July 2015)

Outfall 002

The discharge from Outfall 002 consists of non-contact cooling water and storm water from the coke plant, sinter plant, blast furnaces, steelmaking area, power station and the shops complex. Outfall 002 also receives groundwater from building dewatering at the shops complex, power station and slab yard.

Long Term Average Flowrate: 221 mgd, (January 2011 to July 2015)

Maximum Monthly Average Flow Rate: 352 mgd, (January 2011 to July 2015)

Outfall 003

The discharge from Outfall 003 consists of backwash from the No. 1 and 2 Lake Water Pump Stations traveling screens. Lake Michigan water is used to backwash the traveling screens.

Long Term Average Flowrate: 1.4 mgd (estimated)

Outfall 011

The discharge from Outfall 011 consists of treated wastewater from the Secondary Wastewater Treatment Plant and treated effluent from the Town of Burns Harbor sanitary wastewater treatment plant. Process wastewaters from the following operations are discharged to the Secondary Wastewater Treatment Plant:

- Sintering
- Iron Making (Blast Furnaces C and D)
- Steel Making (BOFs Nos. 1, 2 and 3)
- Vacuum Degassing
- Continuous Casting (Casters No. 1 and 2)
- Hot Forming (110" Plate Mill, 160" Plate Mill, 80" Hot Strip Mill)
- Acid Pickling (No. 1 and 2 Picklers, Continuous Heat Treat Line)
- Cold Rolling (Tandem Mill and Temper Mill)
- Alkaline Cleaning (Continuous Heat Treat Line and Hot Dip Coating Line)
- Galvanizing (Hot Dip Coating)

Attachment 1

ArcelorMittal Burns Harbor NPDES Permit Renewal Application

Landfill leachate from the Deerfield Storage Facility is collected and discharged to the Secondary Wastewater Treatment Plant.

The long term average and maximum monthly average flow rates for Outfall 011 are listed below:

Long Term Average Flowrate: 72 mgd, (January 2011 to July 2015)

Maximum Monthly Average Flow Rate: 80 mgd, (January 2011 to July 2015)

Wastewater Treatment

The blast furnaces, basic oxygen furnaces and continuous casters are equipped with dedicated, high rate wastewater treatment and recycle systems. The blowdown wastewater from these systems is directed to the Secondary Wastewater Treatment Plant for additional treatment.

The blast furnace recycle system consists of two thickeners (i.e., one for each furnace), a cooling tower and a pump house for recirculating treated process water for reuse at the blast furnaces. Periodic blowdown from or lake water make-up to this system occurs throughout the day in order to maintain a hydraulic balance within the recycle system. The blowdown is discharged to the plant's dirty industrial wastewater (DIW) sewer system for further treatment at the Secondary Wastewater Treatment Plant (SWTP). In the event the recycle system experiences elevated concentrations of cyanide, a steady-state blowdown can be directed to an alkaline chlorination system to destroy the cyanide before discharge to the SWTP.

The sinter plant has a recirculating gas cleaning system. The blowdown from this system is directed to the Reclamation Services Building (RSB) for treatment. After pH adjustment and the addition of flocculation/coagulation polymers, the wastewaters are directed to the final RSB thickener for preliminary clarification. The effluent of the final RSB thickener discharges to the DIW sewer system for further treatment at the SWTP.

The basic oxygen furnace recycle system consists of two thickeners that treat the gas cleaning process waters prior to recycling back to the gas cleaning system. A blowdown is directed to the DIW sewer system for further treatment at the SWTP. Process wastewater from the Vacuum Degasser is directed to the DIW for treatment at the SWTP.

The continuous casters (2) are equipped with scale pits for the removal of suspended solids and oil. The hot forming mills (two plate mills and the hot strip mill) are also equipped with scale pits and oil skimming equipment. The facilities recycle a portion of the scale pit effluent water for use in the production process and the balance is discharged to the DIW sewer system for further treatment at the SWTP.

Wastewaters generated from the hot dip (galvanizing) coating line are filtered prior to discharge to the DIW in order to remove particulate zinc. Waste pickling acids are either used on site to neutralize wastewaters, sold for off-site recycling or disposed of by deep well injection. Pickling rinse waters and fume scrubber blowdown are combined with pretreated wastewaters from the cold rolling operations and directed, via the DIW sewer system, to the SWTP for final treatment.

Attachment 1

ArcelorMittal Burns Harbor NPDES Permit Renewal Application

Groundwater collected from the ore dock area is recovered and used as a replacement for lake water in the gas cleaning systems of the Sinter Plant.

Treatment at the SWTP includes pH adjustment, oil separation, flocculation/coagulation and clarification. The SWTP effluent is routed through two polishing lagoons prior to discharge through internal Outfall 011 and final Outfall 001 into the East Branch of the Little Calumet River. The lagoons are equipped with aerators for temperature control. Lake Michigan water can be added to the Outfall 011 discharge during warm weather months for additional temperature control at a point after the discharge from Outfall 011 and prior to the monitoring point for Outfall 001.

Sludges generated by the SWTP are disposed on-site in ArcelorMittal's Dearfield Storage Facility, a permitted Type 1 solid waste landfill. Leachate generated by the landfill is directed to the SWTP.

ATTACHMENT 2**PRODUCTION RATES AND CALCULATION OF TECHNOLOGY-BASED EFFLUENT LIMITS****ARCELORMITTAL BURNS HARBOR NPDES PERMIT RENEWAL APPLICATION**

Operation	Production
	Tons/day
Sinter Plant	9,471
Blast Furnaces C&D	14,796
Total BOF	17,127
BOF Nos. 1 & 2 (OC)	10,694
BOF No. 3 (SC)	6,433
Vacuum Degasser	16,730
Nos. 1 & 2 Casters	18,018
Hot Strip Mill	12,268
110" & 160" Plate Mills	4,343
Nos. 1 & 2 Pickle Lines	7,555
Tandem Mill	7,667
Temper Mill	3,225
CHTL	1,393
HDGL	1,843

ATTACHMENT 2

PRODUCTION RATES AND CALCULATION OF TECHNOLOGY-BASED EFFLUENT LIMITS
ARCELORMITTAL BURNS HARBOR NPDES PERMIT RENEWAL APPLICATION

PROCESS	ELG	PRODUCTION (TONS/DAY)	TSS		OIL & GREASE		TOTAL LEAD		TOTAL ZINC		AMMONIA-N		T. CYANIDE		PHENOLS(4AAP)		Naphthalene	TCE	Hexavalent Chromium	TRC	
			AVE	MAX	AVE	MAX	AVE	MAX	AVE	MAX	AVE	MAX	AVE	MAX	AVE	MAX	MAX	MAX	Ave.	Max.	MAX
SINTERING ¹	420.22/23	9,471	0.0250 473.55	0.0751 1422.53	0.00501 94.90	0.0150 284.13	0.000150 2.84	0.000451 8.54	0.000225 4.26	0.000876 12.80	0.00501 94.90	0.0150 284.13	0.00150 28.41	0.00300 56.83	0.0000501 0.95	0.000100 1.89	0	0		0	
IRONMAKING "C" and "D"	420.32/33 (a)	14,796	0.0260 789.38	0.0782 2314.06	0	0	0.0000876 2.59	0.000263 7.78	0.000131 3.88	0.000394 11.06	0.00262 86.41	0.00876 259.22	0.00175 51.79	0.0000292 0.86	0.0000584 1.73	0	0		0.000146 4.32		
STEELMAKING BOF-SC	420.42/43 (b)	6,433	0.0104 133.81	0.0312 401.44	0	0	0.0000626 0.81	0.000188 2.42	0.0000939 1.21	0.000282 3.63	0	0	0	0	0	0	0	0		0	
STEELMAKING BOF-OC	420.42/43 (c)	10,694	0.0229 469.76	0.0687 1469.29	0	0	0.000138 2.95	0.000413 8.83	0.000207 4.43	0.000620 13.26	0	0	0	0	0	0	0	0		0	
VACUUM DEGASSING	420.52/53	16,730	0.00521 174.32	0.0156 521.97	0	0	0.0000313 1.05	0.0000939 3.14	0.0000469 1.57	0.000141 4.72	0	0	0	0	0	0	0	0		0	
CONTINUOUS CASTING No. 1 and 2	420.62/63	18,018	0.0260 936.96	0.0780 2810.87	0.0078 281.09	0.0234 843.26	0.0000313 1.13	0.0000939 3.38	0.0000469 1.89	0.000141 5.08	0	0	0	0	0	0	0	0		0	
HOT FORMING ² PRIMARY w/scarfing	420.72/77 (a)(2)	0.0	0.063 0.00	0.221 0.00	0	0	0.0000375 0.00	0.000113 0.00	0.0000563 0.00	0.000169 0.00	0	0	0	0	0	0	0	0		0	
HOT FORMING ² STRIP 80"	420.72/77 (c)(1)	12,268	0.160 3925.66	0.427 10476.62	0	0	0.000108 2.65	0.000325 7.97	0.000163 4.00	0.000488 11.97	0	0	0	0	0	0	0	0		0	
HOT FORMING ² PLATE 160", 110"	420.72/77 (c)(2)	4,343	0.0651 739.16	0.227 1971.68	0	0	0.0000584 0.51	0.000175 1.52	0.0000876 0.76	0.000263 2.26	0	0	0	0	0	0	0	0		0	
HCl PICKLING Nos. 1, 2, CHTL	420.92/93 (b)(2)	8,946	0.0350 626.33	0.0818 1463.83	0.0117 209.37	0.0350 626.33	0.000175 3.13	0.000526 9.41	0.000234 4.19	0.000701 12.54	0	0	0	0	0	0	0	0		0	
HCl PICKLING Fume Scrubbers	420.92/93 (b)(4)	3	2.45 16.20	5.72 37.83	0.819 5.42	2.45 16.20	0.0123 0.06	0.0368 0.24	0.0164 0.11	0.0491 0.32	0	0	0	0	0	0	0	0		0	
COLD ROLLING Tandem Mill	420.102/103 (a)(2)	7,667	0.00313 48.00	0.00626 95.99	0.00104 15.95	0.00261 40.02	0.0000156 0.24	0.0000469 0.72	0.0000104 0.16	0.0000313 0.48	0	0	0	0	0	0	0.0000104 0.16	0.0000156 0.24		0	
COLD ROLLING Temper Mill	420.102/103 (a)(4)	3,225	0.0113 72.89	0.0225 145.13	0.00376 24.25	0.00939 60.57	0.0000563 0.36	0.000169 1.09	0.0000376 0.24	0.000113 0.73	0	0	0	0	0	0	0.0000376 0.24	0.0000563 0.36		0	
ALKALINE CLEANING HDGL CHTL	420.112 (b)	3,236	0.0438 283.46	0.102 860.12	0.0146 94.49	0.0438 283.46	0	0	0	0	0	0	0	0	0	0	0	0		0	
HOT DIP GALV. HDGL	420.123/127 (a)(1)	1,843	0.0751 276.85	0.175 645.12	0.0250 92.16	0.0751 276.85	0.000376 1.39	0.00113 4.17	0.000500 1.84	0.00150 5.53	0	0	0	0	0	0	0	0	NA NA	NA NA	0
HOT DIP GALV. Fume Scrubber	420.123/127 c	1	16.3 35.93	38.1 84.00	5.45 12.02	16.3 35.93	0.0123 0.03	0.0368 0.08	0.0164 0.04	0.0491 0.11	0	0	0	0	0	0	0	0	NA NA	NA NA	0
TOTAL MILL Outfall 011	(lbs/day) (kg/day)		9,002.27 4,063	24,520.47 11,122	see note see note	5,595.40 2,534	19.75 8.96	59.31 26.90	28.37 12.87	85.12 38.61	161.31 82.2	543.36 246.5	54.33 24.65	108.61 49.27	1.81 0.82	3.62 1.64	0.40 0.18	0.60 0.27	NA NA	NA NA	4.32 1.96

301(g)

301(g)

301(g)

301(g)

Monitoring Waiver Monitoring Waiver

Notes

¹ 2,3,7,8 - TCDF Limit of 10 pg/l at Internal Outfall 111 for Sintering is under appeal by ArcelorMittal² BPJ BAT effluent limits for lead and zinc for Hot Forming operations from 1982 EPA Development Document, Vol IV, p.345 (EPA 440/1-82/024; May 1982). Same as current and prior NPDES permits.

Final NPDES permit limits for ammonia-N and phenols are Section 301(g) effluent limits, not the limits shown in the generally applicable calculations shown above

Monitoring waivers for Naphthalene and Tetrachloroethylene are requested to be continued in renewal permit

Hexavalent chromium solutions from the HDGL are not discharged to the secondary wastewater treatment plant, and no internal or external hexavalent chromium limits are requested. Same as current and prior NPDES permits.

For oil and grease, the monthly average limit equates to a concentration below the LOD and LOQ. Therefore, ArcelorMittal requests no monthly average limit (daily maximum limit only) consistent with the effective permit.

For the fume scrubbers the numbers listed under the "Production" column are the number of units servicing the operation, not production in terms of tons/day.

ArcelorMittal Burns Harbor
ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

OUTFALL 001

PARAMETERS	Units	Outfall 001														No. of Analyses	Average	Maximum
		5/5/2015	5/6/2015	5/13/2015	5/14/2015	5/18/2015	5/19/2015	7/14/2015	7/15/2015	7/21/2015	7/22/2015	7/28/2015	7/29/2015	8/4/2015	8/5/2015			
PART A PARAMETERS:																		
Biochemical Oxygen Demand (BOD)	mg/L	2.5			4.7		2.9									3	3.4	4.7
E. Coli	#/100 ml	80	130	30	< 10	60	40	120	100	60	270	80	40	80	30	14	62	270
Fecal Coliform	#/100 ml	330	760	110	< 10	310	40									6	123	760
Chemical Oxygen Demand (COD)	mg/L	18			28		12									3	19.3	28.0
Dissolved Oxygen (DO)	mg/L	8.0	8.0	7.4	10.0	8.1	7.3									6	8.1	10.0
Total Dissolved Solids (TDS)	mg/L	250			260		250									3	253	260
Total Organic Carbon (TOC)	mg/L	2.2			4.1		3.3									3	3.2	4.1
Total Suspended Solids (TSS)	mg/L	6.5			6.7		7.0									3	6.7	7.0
Ammonia as N	mg/L	0.82			0.66		0.90									3	0.8	0.9
Temperature	°C	Refer to Routine NPDES permit monitoring data														NA	refer to routine monitoring data	
Hardness, Total (as CaCO3)	mg/L	160			170		170									3	167	170
pH	s.u.	7.8			7.7		7.6									3	7.6	7.8
PART B PARAMETERS:																		
Bromide	mg/L	< 0.50			< 0.50		< 0.50									3	< 0.50	< 0.50
Chloride	mg/L	34			35		30									3	33	35
Chlorine, Total Residual	mg/L	< 0.02	< 0.02		< 0.02	< 0.02	< 0.02									5	< 0.020	< 0.020
Color	C. U.	15	10	15	< 5	10	10									6	10.4	15
Fluoride	mg/L	0.70			0.63		0.76									3	0.70	0.76
Nitrate + Nitrite as N	mg/L	0.53			0.54		0.52									3	0.53	0.54
Nitrogen, Total Organic (as N)	mg/L	2.3			1.20		0.70									3	1.40	2.30
Oil and Grease (hexane)	mg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0									6	< 5.0	< 5.0
Phosphorus (as P), Total	mg/L	0.10			0.14		0.17									3	0.14	0.17
Sulfate (as SO4)	mg/L	32			41		40									3	38	41
Sulfide (as S)	mg/L	< 0.028			< 0.028		< 0.028									3	< 0.028	< 0.028
Sulfite (as SO3)	mg/L	< 1.0			< 1.0		< 1.0									3	< 1.0	< 1.0
Surfactants	mg/L	< 0.20			< 0.20		< 0.20									3	< 0.20	< 0.20
Aluminum, Total	mg/L	0.054			0.072		0.055									3	0.060	0.072
Barium, Total	mg/L	0.024			0.023		0.024									3	0.024	0.024
Boron, Total	mg/L	0.047			0.061		0.049									3	0.052	0.061
Cobalt, Total	mg/L	0.00017			0.00014		0.00016									3	0.00016	0.00017
Iron, Total	mg/L	0.25			0.49		0.49									3	0.41	0.49
Magnesium, Total	mg/L	14			14		15									3	14.3	15.0
Molybdenum, Total	mg/L	0.015			0.008		0.015									3	0.013	0.0150
Manganese, Total	mg/L	0.058			0.045		0.068									3	0.057	0.0680
Tin, Total	mg/L	< 0.0017			< 0.0017		< 0.0017									3	< 0.0017	< 0.0017
Titanium, Total	mg/L	0.0014			0.0022		0.0017									3	0.0018	0.0022
Total Kjeldahl Nitrogen	mg/L	3.1			1.9		1.6									3	2.2	3.1
Nitrate	mg/L	0.53			0.54		0.52									3	0.53	0.54
Nitrite	mg/L	0.0360			0.0096		0.0074									3	0.018	0.036
PART C PARAMETERS:																		
Part C Parameters - Priority Pollutant Metals, Cyanide, Phenols, Dioxin																		
Antimony, Total	mg/L	0.0010			0.0009		0.0011									3	0.0010	0.0011
Arsenic, Total	mg/L	0.0014			< 0.0010		0.0013									3	0.0011	0.0014
Beryllium, Total	mg/L	< 0.000040			< 0.000040		< 0.000040									3	< 0.00004	< 0.00004
Cadmium, Total	mg/L	< 0.000040			0.000071		0.000049									3	0.00005	0.00007

ArceIorMittal Burns Harbor
ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

OUTFALL 001

PARAMETERS	Units	Outfall 001														No. of Analyses	Average	Maximum
		5/5/2015	5/6/2015	5/13/2015	5/14/2015	5/18/2015	5/19/2015	7/14/2015	7/15/2015	7/21/2015	7/22/2015	7/26/2015	7/29/2015	8/4/2015	8/5/2015			
Chromium, Total	mg/L	0.00071			0.00077		0.0010									3	0.0008	0.0010
Hexavalent Chromium, dissolved	mg/L	0.0015	<0.001	<0.001	<0.0010	<0.001	0.0038	0.0068	<0.001	<0.001	<0.001	0.0040	<0.001	0.0030	<0.001	14	0.0017	0.0068
Copper, Total	mg/L	0.00016			0.0067		0.0054									3	0.0020	0.0014
Lead, Total	mg/L	0.0020			0.0016		0.0019									3	0.0018	0.0020
Mercury, Total	mg/L							Refer to routine monitoring data								NA	refer to routine monitoring data	
Nickel, Total	mg/L	0.0029			0.0024		0.0028									3	0.0027	0.0029
Selenium, Total	mg/L	0.0011			0.0010		0.0014		0.00053		0.00079		0.00068		0.00054	7	0.00066	0.0014
Silver, Total	mg/L	<0.000060			<0.000060		<0.000060									3	<0.000060	<0.000060
Thallium, Total	mg/L	0.00021			0.00050		0.00059									3	0.00043	0.00059
Vanadium, Total	mg/L	0.00081			0.00085		0.00069									3	0.00078	0.00085
Zinc, Total	mg/L	0.021			0.028		0.022									3	0.024	0.028
Cyanide, Free	mg/L	0.0537	0.0310	<0.002	<0.002	0.0096	0.0107	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	14	0.0062	0.0537
Cyanide, Total	mg/L	0.061	0.032	<0.002	<0.002	0.010	0.0088	<0.002	<0.002	<0.002	<0.002	<0.003	<0.003	<0.003	<0.003	13	0.0094	0.0610
Phenols, Total	mg/L	<0.0098	<0.0098	0.011	<0.0098	<0.0098	<0.0098									6	0.0061	0.011
Part C Parameters - Other Parameters																		
Bis(chloromethyl)ether	ug/L	<10			<10		<11									3	<11	<10
Part C Parameters - Volatile Organic																		
1,1,2,2-Tetrachloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20									6	<0.20	<0.20
1,1,2-Trichloroethane	ug/L	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39									6	<0.39	<0.39
1,1,1-Trichloroethane	ug/L	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19									6	<0.19	<0.19
1,1-Dichloroethane	ug/L	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16									6	<0.16	<0.16
1,1-Dichloroethene	ug/L	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19									6	<0.19	<0.19
1,2,4 Trimethylbenzene	ug/L	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26									6	<0.26	<0.26
1,2-Dichloroethane	ug/L	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14									6	<0.14	<0.14
1,2-Dichloroethene, trans	ug/L	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23									6	<0.23	<0.23
1,2-Dichloropropane	ug/L	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15									6	<0.15	<0.15
1,3,5 Trimethylbenzene	ug/L	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17									6	<0.17	<0.17
1,3-Dichloropropane	ug/L	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21									6	<0.21	<0.21
1,3-Dichloropropane, cis	ug/L	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23									6	<0.23	<0.23
1,3-Dichloropropane, trans	ug/L	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18									6	<0.18	<0.18
Methyl Ethyl Ketone (2-Butanone)	ug/L	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83									6	<0.83	<0.83
2-Chloroethylvinyl Ether	ug/L	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38									6	<0.38	<0.38
Acetone	ug/L	3.7	3.3	4.2	1.5	5.0	4.6									6	3.7	5.0
Acrolein	ug/L	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1									6	<2.1	<2.1
Acrylonitrile	ug/L	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3									6	<3.3	<3.3
Benzene	ug/L	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18									6	<0.18	<0.18
Bromoform	ug/L	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27									6	<0.27	<0.27
Carbon disulfide	ug/L	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26									6	<0.26	<0.26
Carbon Tetrachloride	ug/L	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16									6	<0.16	<0.16
Chlorobenzene	ug/L	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16									6	<0.16	<0.16
Chlorodibromomethane	ug/L	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22									6	<0.22	<0.22
Chloroethane	ug/L	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41									6	<0.41	<0.41
Dichlorobromomethane	ug/L	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30									6	<0.30	<0.30
Dichlorodifluoromethane	ug/L	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18									6	<0.18	<0.18
Ethylbenzene	ug/L	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15									6	<0.15	<0.15
Ethylene Glycol	mg/L	<7.1		<7.1	<7.1	<7.1	<7.1									5	<7.1	<7.1
Methanol	mg/L	<7.2		<7.2	<7.2	<7.2	<7.2									5	<7.2	<7.2
Methyl Bromide (Bromomethane)	ug/L	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37									6	<0.37	<0.37
Methyl Chloride (Chloromethane)	ug/L	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33									6	<0.33	<0.33
Methyl ter-butyl ether (MTBE)	ug/L	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11									6	<0.11	<0.11

ArcelorMittal Burns Harbor
ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

OUTFALL 001

PARAMETERS	Units	Outfall 001														No. of Analyses	Average	Maximum
		5/5/2015	5/6/2015	5/13/2015	5/14/2015	5/18/2015	5/19/2015	7/14/2015	7/15/2015	7/21/2015	7/22/2015	7/28/2015	7/29/2015	8/4/2015	8/5/2015			
Methylene Chloride	ug/L	0.64	0.59	< 0.31	< 0.31	< 0.31	< 0.31									6	0.31	0.64
Propylene Glycol	mg/L	< 2.1		< 2.1	< 2.1	< 2.1	< 2.1									5	< 2.1	< 2.1
Tetrachloroethene	ug/L	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32									6	< 0.32	< 0.32
Trichloroethylene	ug/L	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29									6	< 0.29	< 0.29
Trichlorofluoromethane	ug/L	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30									6	< 0.30	< 0.30
Toluene	ug/L	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15									6	< 0.15	< 0.15
Vinyl Chloride	ug/L	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17									6	< 0.17	< 0.17
Part C Parameters Semi-Volatile Organic Acid																		
2,4-Dichlorophenol	ug/L	< 1.1			< 1.1		< 1.2									3	< 1.1	< 1.2
2,4-Dimethylphenol	ug/L	< 1.1			< 1.1		< 1.2									3	< 1.1	< 1.2
2,4-Dinitrophenol	ug/L	< 1.3			< 1.3		< 1.4									3	< 1.3	< 1.4
2,4,6-Trichlorophenol	ug/L	< 1.0			< 1.0		< 1.1									3	< 1.0	< 1.1
2-Chlorophenol	ug/L	< 0.90			< 0.93		< 0.98									3	< 0.94	< 0.98
2-Nitrophenol	ug/L	< 1.2			< 1.2		< 1.3									3	< 1.2	< 1.3
4-Nitrophenol	ug/L	< 0.80			< 0.82		< 0.87									3	< 0.83	< 0.87
4,6-Dinitro-o-cresol	ug/L	< 1.1			< 1.1		< 1.2									3	< 1.2	< 1.2
Benzoic Acid	ug/L	< 0.50			< 0.52		< 0.54									3	< 0.52	< 0.54
p-Chloro-m-cresol	ug/L	< 0.92			< 0.93		< 0.98									3	< 0.94	< 0.98
Pentachlorophenol	ug/L	< 1.0			< 1.0		< 1.1									3	< 1.0	< 1.1
Phenol	ug/L	< 0.50			< 0.52		< 0.54									3	< 0.52	< 0.54
Part C Parameters Semi-Volatile Organic Base																		
1,2,4-Trichlorobenzene	ug/L	< 1.7			< 1.8		< 1.8									3	< 1.8	< 1.8
1,2-Dichlorobenzene	ug/L	< 1.7			< 1.8		< 1.8									3	< 1.8	< 1.8
1,2-Diphenyl hydrazine	ug/L	< 1.0			< 1.0		< 1.1									3	< 1.0	< 1.1
1,3-Dichlorobenzene	ug/L	< 1.9			< 2.0		< 2.1									3	< 2.0	< 2.1
1,4-Dichlorobenzene	ug/L	< 1.8			< 1.9		< 2.0									3	< 1.9	< 2.0
2-Chloronaphthalene	ug/L	< 1.3			< 1.3		< 1.4									3	< 1.3	< 1.4
2-Methylnaphthalene	ug/L	< 1.5			< 1.5		< 1.6									3	< 1.5	< 1.6
2,4-Dinitrotoluene	ug/L	< 1.0			< 1.0		< 1.1									3	< 1.0	< 1.1
2,6-Dinitrotoluene	ug/L	< 0.90			< 0.93		< 0.98									3	< 0.94	< 0.98
3,3'-Dichlorobenzidine	ug/L	< 1.3			< 1.3		< 1.4									3	< 1.3	< 1.4
Benzo [b] fluoranthene	ug/L	< 1.1			< 1.1		< 1.2									3	< 1.1	< 1.2
4-Bromophenyl Phenyl Ether	ug/L	< 0.80			< 0.82		< 0.87									3	< 0.83	< 0.87
4-Chlorophenyl Phenyl Ether	ug/L	< 1.0			< 1.0		< 1.1									3	< 1.0	< 1.1
Acenaphthene	ug/L	< 1.0			< 1.0		< 1.1									3	< 1.0	< 1.1
Acenaphthylene	ug/L	< 1.2			< 1.2		< 1.3									3	< 1.2	< 1.3
Anthracene	ug/L	< 0.90			< 0.93		< 0.98									3	< 0.93	< 0.98
Benzidine	ug/L	< 0.20			< 0.21		< 0.22									3	< 0.21	< 0.22
Benzo (a) anthracene	ug/L	< 0.60			< 0.62		< 0.65									3	< 0.62	< 0.65
Benzo (a) pyrene	ug/L	< 0.80			< 0.82		< 0.87									3	< 0.83	< 0.87
Benzo (ghi) perylene	ug/L	< 0.90			< 0.93		< 0.98									3	< 0.94	< 0.98
Benzo (k) fluoranthene	ug/L	< 0.70			< 0.72		< 0.75									3	< 0.73	< 0.75
Bis (2-Chloroethoxy) Methane	ug/L	< 0.90			< 0.93		< 0.98									3	< 0.94	< 0.98
Bis (2-Chloroethyl) Ether	ug/L	< 1.7			< 1.8		< 1.8									3	< 1.8	< 1.8
Bis (2-Chloroisopropyl) Ether	ug/L	< 1.1			< 1.1		< 1.2									3	< 1.1	< 1.2
Bis (2-Ethylhexyl) Phthalate	ug/L	< 0.70			< 0.72		< 0.76									3	< 0.73	< 0.76
Butyl Benzyl Phthalate	ug/L	< 0.70			< 0.72		< 0.76									3	< 0.73	< 0.76
Chrysene	ug/L	< 0.80			< 0.82		< 0.87									3	< 0.83	< 0.87
Di-N-Butyl Phthalate	ug/L	< 0.60			< 0.62		< 0.65									3	< 0.62	< 0.65
Di-N-Octyl Phthalate	ug/L	< 0.80			< 0.82		< 0.87									3	< 0.83	< 0.87

ArcelorMittal Burns Harbor
ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

OUTFALL 001

PARAMETERS	Units	Outfall 001														No. of Analyses	Average	Maximum
		5/5/2015	5/6/2015	5/13/2015	5/14/2015	5/18/2015	5/19/2015	7/14/2015	7/15/2015	7/21/2015	7/22/2015	7/28/2015	7/29/2015	8/4/2015	8/5/2015			
Dibenzo (a,h) anthracene	ug/L	< 0.90			< 0.93		< 0.98									3	< 0.94	< 0.98
Dibenzofuran	ug/L	< 1.0			< 1.0		< 1.1									3	< 1.0	< 1.1
Diethyl Phthalate	ug/L	< 0.60			< 0.62		< 0.65									3	< 0.62	< 0.65
Dimethyl Phthalate	ug/L	< 0.80			< 0.82		< 0.87									3	< 0.83	< 0.87
Fluoranthene	ug/L	< 0.70			< 0.72		< 0.76									3	< 0.73	< 0.76
Fluorene	ug/L	< 1.3			< 1.3		< 1.4									3	< 1.3	< 1.4
Hexachlorobenzene	ug/L	< 1.3			< 1.3		< 1.4									3	< 1.3	< 1.4
Hexachlorobutadiene	ug/L	< 2.3			< 2.4		< 2.5									3	< 2.4	< 2.5
Hexachlorocyclopentadiene	ug/L	< 1.7			< 1.8		< 1.8									3	< 1.8	< 1.8
Hexachloroethane	ug/L	< 2.1			< 2.1		< 2.3									3	< 2.1	< 2.3
Indeno(1,2,3-cd) pyrene	ug/L	< 1.1			< 1.1		< 1.2									3	< 1.1	< 1.2
Isophorone	ug/L	< 0.90			< 0.93		< 0.98									3	< 0.94	< 0.98
N-Nitrosodi-N-propylamine	ug/L	< 1.3			< 1.3		< 1.4									3	< 1.3	< 1.4
N-Nitrosodimethylamine	ug/L	< 2.3			< 2.4		< 2.5									3	< 2.4	< 2.5
N-Nitrosodiphenylamine	ug/L	< 0.80			< 0.82		< 0.87									3	< 0.83	< 0.87
Naphthalene	ug/L	< 1.3			< 1.3		< 1.4									3	< 1.3	< 1.4
Nitrobenzene	ug/L	< 1.4			< 1.4		< 1.4									3	< 1.4	< 1.4
Phenanthrene	ug/L	< 0.70			< 0.72		< 0.76									3	< 0.73	< 0.76
Pyrene	ug/L	< 0.70			< 0.72		< 0.76									3	< 0.73	< 0.76
Styrene	ug/L	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14									6	< 0.14	< 0.14

Notes:

Italic results are based upon "J" values that are estimated concentrations between the MDL and the RL.

Bold Italic results are based upon non-detected values with ND = 1/2 the MDL.

Notes for CN Results:

Results for total and free cyanide collected in May 2015 are believed to be attributable to a short term blast furnace operating issue. Results collected in July and August 2015 are believed to be representative of typical operations.

Notes for E. Coll and Fecal Coliform

Averages shown for E. Coll and Fecal Coliform are geometric means with ND = 1/2 DL.

ArcelorMittal Burns Harbor
ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

OUTFALL 011

OUTFALLS:	Outfall 011															No. of Analyses	Average	Maximum
SAMPLE DATE:	5/5/2015	5/6/2015	5/13/2015	5/14/2015	5/18/2015	5/19/2015	7/14/2015	7/15/2015	7/21/2015	7/22/2015	7/28/2015	7/29/2015	8/4/2015	8/5/2015				
PART A PARAMETERS:																		
Biochemical Oxygen Demand (BOD)	mg/L	2.5			4.0		2.0									3	2.8	4.0
E. Coll	#/100 ml	200	100	50	40	70	< 10	40	30	20	30	30	< 10	50	< 10	14	29	200
Fecal Coliform	#/100 ml	590	440	240	280	10	20									6	123	590
Chemical Oxygen Demand (COD)	mg/L	12			24		< 9.2									3	14	24
Dissolved Oxygen (DO)	mg/L	6.1	5.8	4.2	4.1	5.7	4.7									6	5.1	6.1
Total Dissolved Solids (TDS)	mg/L	270			290		240									3	266.7	290.0
Total Organic Carbon (TOC)	mg/L	2.2			3.2		2.7									3	2.7	3.2
Total Suspended Solids (TSS)	mg/L	10.0			1.8		6.0									3	5.9	10.0
Ammonia as N	mg/L	1.00			0.46		0.60									3	0.7	1.0
Hardness, Total (as CaCO3)	mg/L	170			170		180									3	173.3	180.0
pH	s.u.	7.9			7.6		7.7									3	7.6	7.9
PART B PARAMETERS:																		
Bromide	mg/L	< 0.50			< 0.50		< 0.50									3	< 0.50	< 0.50
Chloride	mg/L	40			38		31									3	36.3	40.0
Chlorine, Total Residual	mg/L	< 0.02			< 0.02		< 0.02									3	< 0.02	< 0.02
Color	C. U.	10	15		15	5	10									5	11.0	15.0
Fluoride	mg/L	1.1			1.0		1.1									3	1.1	1.1
Nitrate + Nitrite as N	mg/L	0.63			0.91		1.10									3	0.9	1.1
Nitrogen, Total Organic (as N)	mg/L	0.7			1.80		0.70									3	1.1	1.8
Oil and Grease (hexane)	mg/L	1.40	< 1.4	1.60	< 1.4	1.90	1.40									6	1.28	1.9
Phosphorus (as P), Total	mg/L	0.12			0.14		0.19									3	0.15	0.19
Sulfate (as SO4)	mg/L	35			45		43									3	41.0	45.0
Sulfide (as S)	mg/L	< 0.028			< 0.028		< 0.028									3	< 0.028	< 0.028
Sulfite (as SO3)	mg/L	< 1.0			< 1.0		< 1.0									3	< 1.0	< 1.0
Surfactants	mg/L	< 0.20			< 0.20		< 0.20									3	< 0.20	< 0.20
Aluminum, Total	mg/L	0.053			0.031		0.035									3	0.040	0.053
Barium, Total	mg/L	0.023			0.020		0.022									3	0.022	0.023
Boron, Total	mg/L	0.052			0.058		0.050									3	0.053	0.058
Cobalt, Total	mg/L	0.00024			0.000097		0.00014									3	0.00016	0.00024
Iron, Total	mg/L	0.60			0.34		0.47									3	0.47	0.60
Magnesium, Total	mg/L	14			14		14									3	14	14
Molybdenum, Total	mg/L	0.021			0.011		0.022									3	0.018	0.022
Manganese, Total	mg/L	0.120			0.031		0.070									3	0.074	0.120
Tin, Total	mg/L	0.0018			< 0.0017		< 0.0017									3	< 0.0017	< 0.0017
Titanium, Total	mg/L	0.0014			0.00081		0.0010									3	0.0011	0.0014
Total Kjeldahl Nitrogen	mg/L	1.7			2.3		1.3									3	1.8	2.3
Nitrate	mg/L	0.63			0.91		0.92									3	0.8	0.9
Nitrite	mg/L	0.0350			0.0980		0.14									3	0.091	0.140

ArcelorMittal Burns Harbor

ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

OUTFALL 011

OUTFALLS:		Outfall 011														No. of Analyses	Average	Maximum
SAMPLE DATE:		5/5/2015	5/6/2015	5/13/2015	5/14/2015	5/18/2015	5/19/2015	7/14/2015	7/15/2015	7/21/2015	7/22/2015	7/28/2015	7/29/2015	8/4/2015	8/5/2015			
PART C PARAMETERS:																		
Part C Parameters - Priority Pollutant Metals, Cyanide, Phenols, Dioxin																		
Antimony, Total	mg/L	0.0016			0.0012		0.0013									3	0.0014	0.0016
Arsenic, Total	mg/L	0.0018			0.0010		0.0014									3	0.0014	0.0018
Beryllium, Total	mg/L	< 0.00004			< 0.00004		< 0.00004									3	< 0.00004	< 0.00004
Cadmium, Total	mg/L	0.000055			0.000096		< 0.00004									3	0.000057	0.000096
Chromium, Total	mg/L	0.00092			0.00068		0.00088									3	0.000827	0.00092
Hexavalent Chromium, dissolved	mg/L	0.0011	< 0.001	< 0.0001	0.0015	< 0.001	0.0051	0.0042	< 0.001	< 0.001	< 0.001	0.0010	< 0.001	0.0045	0.0013	14	0.0017	0.0051
Copper, Total	mg/L	0.0045			0.0024		0.0045									3	0.0038	0.0045
Lead, Total	mg/L	0.0059			0.0014		0.0020									3	0.0031	0.0059
Nickel, Total	mg/L	0.0050			0.0027		0.0032									3	0.0036	0.0050
Selenium, Total	mg/L	0.0013			0.0014		0.0015		0.0011		0.0018		0.00140		0.00083	7	0.0013	0.0018
Silver, Total	mg/L	< 0.00006			< 0.00006		< 0.0006									3	< 0.00006	< 0.00006
Thallium, Total	mg/L	0.00037			0.00060		0.00066									3	0.000543	0.00066
Vanadium, Total	mg/L	0.00140			0.00098		0.00054									3	0.00097	0.00140
Zinc, Total	mg/L	0.022			0.012		0.011									3	0.015	0.022
Cyanide, Free	mg/L	0.17	0.11	0.0130	0.0065	0.0360	0.0340	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	14	0.027	0.170
Cyanide, Total	mg/L	0.120	0.056		< 0.002	0.0160	0.018	< 0.002	< 0.002	< 0.002	0.006	< 0.003	< 0.003	< 0.003	< 0.003	13	0.017	0.120
Phenols, Total	mg/L	< 0.0098	< 0.0098	0.011	< 0.0098	< 0.0098	< 0.0098									6	0.006	0.011
Part C Parameters - Other Parameters																		
Bis(chloromethyl)ether	ug/L	< 10			< 11		< 11									3	< 11	< 11
Part C Parameters - Volatile Organic																		
1,1,2,2-Tetrachloroethane	ug/L	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20									6	< 0.20	< 0.20
1,1,2-Trichloroethane	ug/L	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39									6	< 0.39	< 0.39
1,1,1-Trichloroethane	ug/L	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19									6	< 0.19	< 0.19
1,1-Dichloroethane	ug/L	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16									6	< 0.16	< 0.16
1,1-Dichloroethene	ug/L	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19									6	< 0.19	< 0.19
1,2,4 Trimethylbenzene	ug/L	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26									6	< 0.26	< 0.26
1,2-Dichloroethane	ug/L	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14									6	< 0.14	< 0.14
1,2 Dichloroethene, trans	ug/L	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19									6	< 0.19	< 0.19
1,2-Dichloropropane	ug/L	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15									6	< 0.15	< 0.15
1,3,5 Trimethylbenzene	ug/L	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17									6	< 0.17	< 0.17
1,3 Dichloropropane	ug/L	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21									6	< 0.21	< 0.21
1,3-Dichloropropene, cis	ug/L	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23									6	< 0.23	< 0.23
1,3-Dichloropropene, trans	ug/L	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18									6	< 0.18	< 0.18
Methyl Ethyl Ketone (2-Butanone)	ug/L	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83									6	< 0.83	< 0.83
2-Chloroethylvinyl Ether	ug/L	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38									6	< 0.38	< 0.38
Acetone	ug/L	5.5	< 1.0	5.3	5.1	5.5	6.4									6	4.7	6.4
Acrolein	ug/L	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1									6	< 2.1	< 2.1
Acrylonitrile	ug/L	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3									6	< 3.3	< 3.3
Benzene	ug/L	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18									6	< 0.18	< 0.18
Bromoform	ug/L	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27									6	< 0.27	< 0.27

ArcelorMittal Burns Harbor
ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

OUTFALL 011

OUTFALLS:		Outfall 011														No. of Analyses	Average	Maximum
		5/5/2015	5/6/2015	5/13/2015	5/14/2015	5/18/2015	5/19/2015	7/14/2015	7/15/2015	7/21/2015	7/22/2015	7/28/2015	7/29/2015	8/4/2015	8/5/2015			
SAMPLE DATE:																		
Carbon disulfide	ug/L	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26									6	< 0.26	< 0.26
Carbon Tetrachloride	ug/L	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16									6	< 0.16	< 0.16
Chlorobenzene	ug/L	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16									6	< 0.16	< 0.16
Chlorodibromomethane	ug/L	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22									6	< 0.22	< 0.22
Chloroethane	ug/L	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41									6	< 0.41	< 0.41
Dichlorobromomethane	ug/L	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30									6	< 0.30	< 0.30
Dichlorodifluoromethane	ug/L	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22									6	< 0.22	< 0.22
Ethylbenzene	ug/L	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15									6	< 0.15	< 0.15
Ethylene Glycol	mg/L	< 7.1	< 7.1		< 7.1	< 7.1	< 7.1									5	< 7.1	< 7.1
Methanol	mg/L	< 7.2	< 7.2		< 7.2	< 7.2	< 7.2									5	< 7.2	< 7.2
Methyl Bromide (Bromomethane)	ug/L	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37									6	< 0.37	< 0.37
Methyl Chloride (Chloromethane)	ug/L	< 0.33	< 0.33		< 0.33	< 0.33	< 0.33									5	< 0.33	< 0.33
Methyl ter-butyl ether (MTBE)	ug/L	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11									6	< 0.11	< 0.11
Methylene Chloride	ug/L	0.56	0.55	< 0.31	< 0.31	< 0.31	< 0.31									6	0.29	0.56
Propylene Glycol	mg/L	< 2.1	< 2.1		< 2.1	< 2.1	< 2.1									5	< 2.1	< 2.1
Tetrachloroethene	ug/L	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32									6	< 0.32	< 0.32
Trichloroethylene	ug/L	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29									6	< 0.29	< 0.29
Trichlorofluoromethane	ug/L	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30									6	< 0.30	< 0.30
Toluene	ug/L	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15									6	< 0.15	< 0.15
Vinyl Chloride	ug/L	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17									6	< 0.17	< 0.17
Part C Parameters Semi-Volatile Organic Acid																		
2,4-Dichlorophenol	ug/L	< 1.1			< 1.2		< 1.2									3	< 1.2	< 1.2
2,4-Dimethylphenol	ug/L	< 1.1			< 1.2		< 1.2									3	< 1.2	< 1.2
2,4-Dinitrophenol	ug/L	< 1.3			< 1.4		< 1.4									3	< 1.4	< 1.4
2,4,6-Trichlorophenol	ug/L	< 1.0			< 1.1		< 1.1									3	< 1.1	< 1.1
2-Chlorophenol	ug/L	< 0.93			< 0.99		< 0.99									3	< 0.97	< 0.99
2-Nitrophenol	ug/L	< 1.2			< 1.3		< 1.3									3	< 1.3	< 1.3
4-Nitrophenol	ug/L	< 0.82			< 0.88		< 0.88									3	< 0.86	< 0.88
4,6-Dinitro-o-cresol	ug/L	< 1.1			< 1.2		< 1.2									3	< 1.2	< 1.2
Benzoic Acid	ug/L	< 0.52			< 0.55		< 0.55									3	< 0.54	< 0.55
p-Chloro-m-cresol	ug/L	< 0.93			< 0.99		< 0.99									3	< 0.97	< 0.99
Pentachlorophenol	ug/L	< 1.0			< 1.1		< 1.1									3	< 1.1	< 1.1
Phenol	ug/L	< 0.52			< 0.55		< 0.55									3	< 0.54	< 0.55
Part C Parameters Semi-Volatile Organic Base																		
1,2,4-Trichlorobenzene	ug/L	< 1.8			< 1.9		< 1.9									3	< 1.9	< 1.9
1,2-Dichlorobenzene	ug/L	< 1.8			< 1.9		< 1.9									3	< 1.9	< 1.9
1,2-Diphenyl hydrazine	ug/L	< 1.0			< 1.1		< 1.1									3	< 1.1	< 1.1
1,3-Dichlorobenzene	ug/L	< 2.0			< 2.0		< 2.0									3	< 2.0	< 2.0
1,4-Dichlorobenzene	ug/L	< 1.9			< 2.0		< 2.0									3	< 2.0	< 2.0
2-Chloronaphthalene	ug/L	< 1.3			< 1.4		< 1.4									3	< 1.4	< 1.4
2-Methylnaphthalene	ug/L	< 1.5			< 1.6		< 1.6									3	< 1.6	< 1.6
2,4-Dinitrotoluene	ug/L	< 0.93			< 0.99		< 0.99									3	< 0.97	< 0.99
2,6-Dinitrotoluene	ug/L	< 0.93			< 0.99		< 0.99									3	< 0.97	< 0.99

ArcelorMittal Burns Harbor

ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

OUTFALL 011

OUTFALLS:		Outfall 011														No. of Analyses	Average	Maximum
SAMPLE DATE:		5/5/2015	5/6/2015	5/13/2015	5/14/2015	5/18/2015	5/19/2015	7/14/2015	7/15/2015	7/21/2015	7/22/2015	7/28/2015	7/29/2015	8/4/2015	8/5/2015			
3,3'-Dichlorobenzidine	ug/L	< 1.3			< 1.4		< 1.4									3	< 1.4	< 1.4
Benzo [b] fluoranthene	ug/L	< 1.1			< 1.2		< 1.2									3	< 1.2	< 1.2
4-Bromophenyl Phenyl Ether	ug/L	< 0.82			< 0.88		< 0.88									3	< 0.88	< 0.88
4-Chlorophenyl Phenyl Ether	ug/L	< 1.0			< 1.1		< 1.1									3	< 1.1	< 1.1
Acenaphthene	ug/L	< 1.0			< 1.1		< 1.1									3	< 1.1	< 1.1
Acenaphthylene	ug/L	< 1.2			< 1.1		< 1.1									3	< 1.1	< 1.1
Anthracene	ug/L	< 0.93			< 0.99		< 0.99									3	< 0.97	< 0.99
Benidine	ug/L	< 0.21			< 0.22		< 0.22									3	< 0.22	< 0.22
Benzo (a) anthracene	ug/L	< 0.62			< 0.66		< 0.66									3	< 0.65	< 0.66
Benzo (a) pyrene	ug/L	< 0.82			< 0.88		< 0.88									3	< 0.86	< 0.88
Benzo (ghi) perylene	ug/L	< 0.93			< 0.99		< 0.99									3	< 0.97	< 0.99
Benzo (k) fluoranthene	ug/L	< 0.72			< 0.77		< 0.77									3	< 0.75	< 0.77
Bis (2-Chloroethoxy) Methane	ug/L	< 0.93			< 0.99		< 0.99									3	< 0.97	< 0.99
Bis (2-Chloroethyl) Ether	ug/L	< 1.8			< 1.9		< 1.9									3	< 1.9	< 1.9
Bis (2-Chloroisopropyl) Ether	ug/L	< 1.1			< 1.1		< 1.2									3	< 1.1	< 1.2
Bis (2-Ethylhexyl) Phthalate	ug/L	1.5			< 0.77		1.7									3	1.2	1.7
Butyl Benzyl Phthalate	ug/L	< 0.72			< 0.77		< 0.77									3	< 0.75	< 0.77
Chrysene	ug/L	< 0.82			< 0.88		< 0.88									3	< 0.86	< 0.88
Di-N-Butyl Phthalate	ug/L	< 0.62			< 0.66		< 0.66									3	< 0.65	< 0.66
Di-N-Octyl Phthalate	ug/L	< 0.82			< 0.88		< 0.88									3	< 0.86	< 0.88
Dibenzo (a,h) anthracene	ug/L	< 0.93			< 0.99		< 0.99									3	< 0.97	< 0.99
Dibenzofuran	ug/L	< 1.0			< 1.1		< 1.1									3	< 1.1	< 1.1
Diethyl Phthalate	ug/L	< 0.62			0.95		< 0.66									3	0.53	0.95
Dimethyl Phthalate	ug/L	< 0.82			< 0.88		< 0.88									3	< 0.86	< 0.88
Fluoranthene	ug/L	< 0.72			< 0.77		< 0.77									3	< 0.75	< 0.77
Fluorene	ug/L	< 1.3			< 1.4		< 1.4									3	< 1.4	< 1.4
Hexachlorobenzene	ug/L	< 1.3			< 1.3		< 1.3									3	< 1.3	< 1.3
Hexachlorobutadiene	ug/L	< 2.4			< 2.5		< 2.5									3	< 2.5	< 2.5
Hexachlorocyclopentadiene	ug/L	< 1.8			< 1.9		< 1.9									3	< 1.9	< 1.9
Hexachloroethane	ug/L	< 2.2			< 2.3		< 2.3									3	< 2.3	< 2.3
Indeno(1,2,3-cd) pyrene	ug/L	< 1.1			< 1.2		< 1.2									3	< 1.2	< 1.2
Isophorone	ug/L	< 0.93			< 0.99		< 0.99									3	< 0.97	< 0.99
N-Nitrosodi-N-propylamine	ug/L	< 1.3			< 1.4		< 1.4									3	< 1.4	< 1.4
N-Nitrosodimethylamine	ug/L	< 2.4			< 2.5		< 2.5									3	< 2.5	< 2.5
N-Nitrosodiphenylamine	ug/L	< 0.82			< 0.88		< 0.88									3	< 0.86	< 0.88

ArcelorMittal Burns Harbor
ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

OUTFALL 011

OUTFALLS:		Outfall 011														No. of Analyses	Average	Maximum
SAMPLE DATE:		5/5/2015	5/6/2015	5/13/2015	5/14/2015	5/18/2015	5/19/2015	7/14/2015	7/15/2015	7/21/2015	7/22/2015	7/28/2015	7/29/2015	8/4/2015	8/5/2015			
Naphthalene	ug/L	< 1.3			< 1.4		< 1.4									3	< 1.4	< 1.4
Nitrobenzene	ug/L	< 1.4			< 1.5		< 1.5									3	< 1.5	< 1.5
Phenanthrene	ug/L	< 0.72			< 0.77		< 0.77									3	< 0.75	< 0.77
Pyrene	ug/L	< 0.72			< 0.77		< 0.77									3	< 0.75	< 0.77
Styrene	ug/L	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14									6	< 0.14	< 0.14

Notes:

Italic results are based upon "J" values that are estimated concentrations between the MDL and the RL.

Bold Italic results are based upon non-detect values with ND = 1/2 the MDL.

Notes for CN Results:

Results for total and free cyanide collected in May 2015 are believed to be attributable to a short term blast furnace operating issue. Results collected in July and August 2015 are believed to be representative of typical operations.

Notes for E. Coli and Fecal Coliform

Averages shown for E. Coli and Fecal Coliform are geometric means with ND = 1/2 DL

ArcelorMittal Burns Harbor

ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

OUTFALL 002

OUTFALLS:		Outfall 002	Outfall 002			
SAMPLE DATE:		5/13/2015	5/14/2015	No. of Analyses	Average	Maximum
PART A PARAMETERS:						
Biochemical Oxygen Demand (BOD)	mg/L		<2.0	1	< 2.0	<2.0
E. Coli	#/100 ml	<10	10	2	7.1	10
Fecal Coliform	#/100 ml	30	10	2	17	30
Chemical Oxygen Demand (COD)	mg/L		16	1	16	16
Dissolved Oxygen (DO)	mg/L	8.7	9.1	2	8.9	9.1
Total Dissolved Solids (TDS)	mg/L		170	1	170	170
Total Organic Carbon (TOC)	mg/L		2.0	1	2.0	2.0
Total Suspended Solids (TSS)	mg/L		4.6	1	4.6	4.6
Ammonia as N	mg/L		< 0.050	1	<0.050	<0.050
Hardness, Total (as CaCO3)	mg/L		140	1	140	140
pH	s.u.		7.9	1	7.9	7.9
PART B PARAMETERS:						
Bromide	mg/L		<0.50	1	<0.50	<0.50
Chloride	mg/L		16	1	16	16
Chlorine, Total Residual	mg/L	<0.02	<0.02	2	< 0.02	<0.02
Color	C. U.	5	< 5	2	3.8	5.0
Fluoride	mg/L		0.13	1	0.13	0.13
Nitrate + Nitrite as N	mg/L		0.32	1	0.32	0.32
Nitrogen, Total Organic (as N)	mg/L		0.78	1	0.78	0.78
Oil and Grease (hexane)	mg/L	< 1.4	< 1.4	2	< 1.4	< 1.4
Phosphorus (as P), Total	mg/L		0.17	1	0.17	0.17
Sulfate (as SO4)	mg/L		23	1	23	23
Sulfide (as S)	mg/L		< 0.050	1	< 0.050	< 0.050
Sulfite (as SO3)	mg/L		< 1.0	1	< 1.0	< 1.0
Surfactants	mg/L		< 0.20	1	< 0.20	< 0.20
Aluminum, Total	mg/L		0.081	1	0.081	0.081
Barium, Total	mg/L		0.021	1	0.021	0.021
Boron, Total	mg/L		0.031	1	0.031	0.031
Cobalt, Total	mg/L		0.000110	1	0.00011	0.00011
Iron, Total	mg/L		0.10	1	0.10	0.10
Magnesium, Total	mg/L		13	1	13	13
Molybdenum, Total	mg/L		0.0012	1	0.0012	0.0012
Manganese, Total	mg/L		0.0079	1	0.0079	0.0079
Tin, Total	mg/L		< 0.0017	1	< 0.0017	< 0.0017
Titanium, Total	mg/L		0.00210	1	0.0021	0.0021
Total Kjeldahl Nitrogen	mg/L		0.78	1	0.78	0.78
Nitrate	mg/L		0.32	1	0.32	0.32
Nitrite	mg/L		< 0.002	1	<0.002	<0.002

ArcelorMittal Burns Harbor

ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

OUTFALL 002

OUTFALLS:		Outfall 002	Outfall 002	No. of Analyses	Average	Maximum
SAMPLE DATE:		5/13/2015	5/14/2015			
PART C PARAMETERS:						
Part C Parameters - Priority Pollutant Metals, Cyanide, Phenols, Dioxin						
Antimony, Total	mg/L		0.00022	1	0.00022	0.00022
Arsenic, Total	mg/L		<0.001	1	<0.001	<0.001
Beryllium, Total	mg/L		<0.00004	1	<0.00004	<0.00004
Cadmium, Total	mg/L		<0.00004	1	<0.00004	<0.00004
Chromium, Total	mg/L		0.00097	1	0.00097	0.00097
Hexavalent Chromium, dissolved	mg/L	< 0.001	<0.001	2	<0.001	<0.001
Copper, Total	mg/L		0.0045	1	0.0045	0.0045
Lead, Total	mg/L		0.00049	1	0.00049	0.00049
Mercury, Total	ng/L	Believed present at Lake Michigan water concentrations				
Nickel, Total	mg/L		0.00084	1	0.00084	0.00084
Selenium, Total	mg/L		0.00017	1	0.00017	0.00017
Silver, Total	mg/L		< 0.00006	1	<0.00006	<0.00006
Thallium, Total	mg/L		0.00006	1	0.00006	0.00006
Vanadium, Total	mg/L		0.00037	1	0.00037	0.00037
Zinc, Total	mg/L		0.015	1	0.015	0.015
Cyanide, Free	mg/L		< 0.002	1	< 0.002	<0.002
Cyanide, Total	mg/L	< 0.002	< 0.002	2	< 0.002	< 0.002
Phenols, Total	mg/L	< 0.0098	< 0.0098	2	< 0.0098	< 0.0098
Part C Parameters - Other Parameters						
Bis(chloromethyl)ether	ug/L			0	believed absent	
Part C Parameters - Volatile Organic						
1,1,2,2-Tetrachloroethane	ug/L			0	believed absent	
1,1,2-Trichloroethane	ug/L			0	believed absent	
1,1,1-Trichloroethane	ug/L			0	believed absent	
1,1-Dichloroethane	ug/L			0	believed absent	
1,1-Dichloroethene	ug/L			0	believed absent	
1,2,4 Trimethylbenzene	ug/L			0	believed absent	
1,2-Dichloroethane	ug/L			0	believed absent	
1,2 Dichloroethene, trans	ug/L			0	believed absent	
1,2-Dichloropropane	ug/L			0	believed absent	
1,3,5 Trimethylbenzene	ug/L			0	believed absent	
1,3 Dichloropropane	ug/L			0	believed absent	
1,3-Dichloropropene, cis	ug/L			0	believed absent	
1,3-Dichloropropene, trans	ug/L			0	believed absent	
Methyl Ethyl Ketone (2-Butanone)	ug/L			0	believed absent	
2-Chloroethylvinyl Ether	ug/L			0	believed absent	
Acetone	ug/L			0	believed absent	
Acrolein	ug/L			0	believed absent	
Acrylonitrile	ug/L			0	believed absent	
Benzene	ug/L			0	believed absent	
Bromoform	ug/L			0	believed absent	
Carbon disulfide	ug/L			0	believed absent	

ArcelorMittal Burns Harbor

ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

OUTFALL 002

OUTFALLS:		Outfall 002	Outfall 002	No. of Analyses	Average	Maximum
SAMPLE DATE:		5/13/2015	5/14/2015			
Carbon Tetrachloride	ug/L			0	believed absent	
Chlorobenzene	ug/L			0	believed absent	
Chlorodibromomethane	ug/L			0	believed absent	
Chloroethane	ug/L			0	believed absent	
Dichlorobromomethane	ug/L			0	believed absent	
Dichlorodifluoromethane	ug/L			0	believed absent	
Ethylbenzene	ug/L			0	believed absent	
Ethylene Glycol	mg/L			0	believed absent	
Methanol	mg/L			0	believed absent	
Methyl Bromide (Bromomethane)	ug/L			0	believed absent	
Methyl Chloride (Chloromethane)	ug/L			0	believed absent	
Methyl ter-butyl ether (MTBE)	ug/L			0	believed absent	
Methylene Chloride	ug/L			0	believed absent	
Propylene Glycol	mg/L			0	believed absent	
Tetrachloroethene	ug/L			0	believed absent	
Trichloroethylene	ug/L			0	believed absent	
Trichlorofluoromethane	ug/L			0	believed absent	
Toluene	ug/L			0	believed absent	
Vinyl Chloride	ug/L			0	believed absent	
Part C Parameters Semi-Volatile Organic Acid						
2,4-Dichlorophenol	ug/L			0	believed absent	
2,4-Dimethylphenol	ug/L			0	believed absent	
2,4-Dinitrophenol	ug/L			0	believed absent	
2,4,6-Trichlorophenol	ug/L			0	believed absent	
2-Chlorophenol	ug/L			0	believed absent	
2-Nitrophenol	ug/L			0	believed absent	
4-Nitrophenol	ug/L			0	believed absent	
4,6-Dinitro-o-cresol	ug/L			0	believed absent	
Benzoic Acid	ug/L			0	believed absent	
p-Chloro-m-cresol	ug/L			0	believed absent	
Pentachlorophenol	ug/L			0	believed absent	
Phenol	ug/L			0	believed absent	
Part C Parameters Semi-Volatile Organic Base						
1,2,4-Trichlorobenzene	ug/L			0	believed absent	
1,2-Dichlorobenzene	ug/L			0	believed absent	
1,2-Diphenyl hydrazine	ug/L			0	believed absent	
1,3-Dichlorobenzene	ug/L			0	believed absent	
1,4-Dichlorobenzene	ug/L			0	believed absent	
2-Chloronaphthalene	ug/L			0	believed absent	
2-Methylnaphthalene	ug/L			0	believed absent	
2,4-Dinitrotoluene	ug/L			0	believed absent	
2,6-Dinitrotoluene	ug/L			0	believed absent	
3,3'-Dichlorobenzidine	ug/L			0	believed absent	
Benzo [b] fluoranthene	ug/L			0	believed absent	

ArcelorMittal Burns Harbor

ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

OUTFALL 002

OUTFALLS:		Outfall 002	Outfall 002	No. of Analyses	Average	Maximum
SAMPLE DATE:		5/13/2015	5/14/2015			
4-Bromophenyl Phenyl Ether	ug/L			0	believed absent	
4-Chlorophenyl Phenyl Ether	ug/L			0	believed absent	
Acenaphthene	ug/L			0	believed absent	
Acenaphthylene	ug/L			0	believed absent	
Anthracene	ug/L			0	believed absent	
Benzidine	ug/L			0	believed absent	
Benzo (a) anthracene	ug/L			0	believed absent	
Benzo (a) pyrene	ug/L			0	believed absent	
Benzo (ghi) perylene	ug/L			0	believed absent	
Benzo (k) fluoranthene	ug/L			0	believed absent	
Bis (2-Chloroethoxy) Methane	ug/L			0	believed absent	
Bis (2-Chloroethyl) Ether	ug/L			0	believed absent	
Bis (2-Chloroisopropyl) Ether	ug/L			0	believed absent	
Bis (2-Ethylhexyl) Phthalate	ug/L			0	believed absent	
Butyl Benzyl Phthalate	ug/L			0	believed absent	
Chrysene	ug/L			0	believed absent	
Di-N-Butyl Phthalate	ug/L			0	believed absent	
Di-N-Octyl Phthalate	ug/L			0	believed absent	
Dibenzo (a,h) anthracene	ug/L			0	believed absent	
Dibenzofuran	ug/L			0	believed absent	
Diethyl Phthalate	ug/L			0	believed absent	
Dimethyl Phthalate	ug/L			0	believed absent	
Fluoranthene	ug/L			0	believed absent	
Fluorene	ug/L			0	believed absent	
Hexachlorobenzene	ug/L			0	believed absent	
Hexachlorobutadiene	ug/L			0	believed absent	
Hexachlorocyclopentadiene	ug/L			0	believed absent	
Hexachloroethane	ug/L			0	believed absent	
Indeno(1,2,3-cd) pyrene	ug/L			0	believed absent	
Isophorone	ug/L			0	believed absent	
N-Nitrosodi-N-propylamine	ug/L			0	believed absent	
N-Nitrosodimethylamine	ug/L			0	believed absent	
N-Nitrosodiphenylamine	ug/L			0	believed absent	
Naphthalene	ug/L			0	believed absent	
Nitrobenzene	ug/L			0	believed absent	
Phenanthrene	ug/L			0	believed absent	
Pyrene	ug/L			0	believed absent	
Styrene	ug/L			0	believed absent	

Notes:

Italic results are based upon "J" values that are estimated concentrations between the MDL and the RL.

Italic results are based upon non-detect values with ND = 1/2 the MDL.

E. Coli and Fecal Coliform averages are geometric means with ND = 1/2 DL.

ArcelorMittal Burns Harbor

ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

INTAKE

PARAMETERS	Units	INTAKE														No. of Analyses	Average	Maximum
		5/5/2015	5/6/2015	5/13/2015	5/14/2015	5/18/2015	5/19/2015	7/14/2015	7/15/2015	7/21/2015	7/22/2015	7/28/2015	7/29/2015	8/4/2015	8/5/2015			
PART A PARAMETERS:																		
Biochemical Oxygen Demand (BOD)	mg/L	< 2.0			< 2.0		<2.0									3	< 2.0	< 2.0
E. Coli	#/100 ml	< 10	<10	< 10	70	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	14	8	70
Fecal Coliform	#/100 ml	< 10	10	< 10	70	< 10	10									6	10	70
Chemical Oxygen Demand (COD)	mg/L	10			21		< 10									3	12	21
Dissolved Oxygen (DO)	mg/L	11.0	11.0	9.8	7.6	9.1	10.0									6	9.8	11.0
Total Dissolved Solids (TDS)	mg/L	200			170		170									3	180	200
Total Organic Carbon (TOC)	mg/L	1.4			2.0		2.0									3	1.8	2.0
Total Suspended Solids (TSS)	mg/L	< 1.0			1.2		4.0									3	1.9	4.0
Ammonia as N	mg/L	< 0.05			0.054		0.10									3	0.060	0.10
Hardness, Total (as CaCO3)	mg/L	140			140		150									3	143	150
pH	s.u.	7.7			7.7		7.7									3	7.7	7.7
PART B PARAMETERS:																		
Bromide	mg/L	<0.50			<0.50		<0.50									3	< 0.50	< 0.50
Chloride	mg/L	17			16		14									3	16	17
Chlorine, Total Residual	mg/L	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02									6	<0.02	<0.02
Color	C. U.	5	5	5	10	5	5									6	5.8	10
Fluoride	mg/L	0.14			0.11		0.11									3	0.12	0.14
Nitrate + Nitrite as N	mg/L	0.35			0.35		0.29									3	0.33	0.35
Nitrogen, Total Organic (as N)	mg/L	<0.50			0.58		<0.50									3	0.36	0.58
Oil and Grease (hexane)	mg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0									6	< 1.0	< 1.0
Phosphorus (as P), Total	mg/L	0.10			0.14		0.15									3	0.13	0.15
Sulfate (as SO4)	mg/L	25			24		24									3	24	25
Sulfide (as S)	mg/L	< 0.050			< 0.050		< 0.050									3	< 0.050	< 0.050
Sulfite (as SO3)	mg/L	< 1.0			< 1.0		< 1.0									3	< 1.0	< 1.0
Surfactants	mg/L	< 0.20			< 0.20		< 0.20									3	<0.20	< 0.20
Aluminum, Total	mg/L	0.025			0.024		0.011									3	0.020	0.025
Barium, Total	mg/L	0.021			0.021		0.022									3	0.021	0.022
Boron, Total	mg/L	0.030			0.032		0.030									3	0.031	0.032
Cobalt, Total	mg/L	0.00008			0.00008		0.00007									3	0.00008	0.00008
Iron, Total	mg/L	< 0.00081			< 0.004		< 0.00081									3	< 0.0019	< 0.004
Magnesium, Total	mg/L	14			13		14									3	14	14
Molybdenum, Total	mg/L	0.013			0.012		0.012									3	0.012	0.013
Manganese, Total	mg/L	0.039			0.044		0.046									3	0.043	0.046
Tin, Total	mg/L	< 0.0017			<0.0017		< 0.0017									3	< 0.0017	< 0.0017
Titanium, Total	mg/L	0.0009			0.0010		0.0008									3	0.0009	0.0010
Total Kjeldahl Nitrogen	mg/L	0.4			0.6		0.5									3	0.50	0.58
Nitrate	mg/L	0.35			0.29		0.29									3	0.31	0.31
Nitrite	mg/L	< 0.002			<0.002		<0.002									3	< 0.002	< 0.002

ArcelorMittal Burns Harbor

ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

INTAKE

PARAMETERS	Units	INTAKE														No. of Analyses	Average	Maximum
		5/5/2015	5/6/2015	5/13/2015	5/14/2015	5/18/2015	5/19/2015	7/14/2015	7/15/2015	7/21/2015	7/22/2015	7/28/2015	7/29/2015	8/4/2015	8/5/2015			
PART C PARAMETERS:																		
Part C Parameters - Priority Pollutant Metals, Cyanide, Phenols, Dioxin																		
Antimony, Total	mg/L	0.00018			0.00020		0.00020									3	0.00019	0.00020
Arsenic, Total	mg/L	< 0.001			< 0.001		< 0.001									3	< 0.001	< 0.001
Beryllium, Total	mg/L	< 0.00004			< 0.00004		< 0.00004									3	< 0.00004	< 0.00004
Cadmium, Total	mg/L	< 0.00004			< 0.00004		< 0.00004									3	< 0.00004	< 0.00004
Chromium, Total	mg/L	0.00060			0.00060		0.00064									3	0.00061	0.00064
Hexavalent Chromium, dissolved	mg/L	< 0.001	< 0.001	< 0.001	0.0010	< 0.001	< 0.001	< 0.001	0.0039	< 0.001	< 0.001	< 0.001	< 0.001	0.0012	< 0.001	14	0.0008	0.0039
Copper, Total	mg/L	0.0026			0.0017		0.0044									3	0.0029	0.0044
Lead, Total	mg/L	0.00029			0.00027		0.00060									3	0.00039	0.00060
Nickel, Total	mg/L	0.00096			0.00083		0.00120									3	0.00100	0.00120
Selenium, Total	mg/L	0.00028			0.00019		0.00025		0.00028		0.00020		0.00022		0.00054	7	0.00028	0.00054
Silver, Total	mg/L	< 0.00006			< 0.00006		< 0.00006									3	< 0.00006	< 0.00006
Thallium, Total	mg/L	0.000042			0.000024		0.000025									3	0.000030	0.000042
Vanadium, Total	mg/L	< 0.00018			< 0.00018		< 0.00018									3	< 0.00018	< 0.00018
Zinc, Total	mg/L	0.007			0.005		0.009									3	0.0070	0.0091
Cyanide, Free	mg/L	< 0.002	< 0.002	< 0.002	0.0029	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	14	0.0011	0.0029
Cyanide, Total	mg/L	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.003	< 0.003	< 0.003	< 0.003	14	< 0.002	< 0.003
Phenols, Total	mg/L	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098									6	< 0.0098	< 0.0098
Part C Parameters - Other Parameters																		
Bis(chloromethyl)ether	ug/L	< 1.1			< 1.1		< 1.1									3	< 1.1	< 1.1
Part C Parameters - Volatile Organic																		
1,1,2,2-Tetrachloroethane	ug/L	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20									6	< 0.20	< 0.20
1,1,2-Trichloroethane	ug/L	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39									6	< 0.39	< 0.39
1,1,1-Trichloroethane	ug/L	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19									6	< 0.19	< 0.19
1,1-Dichloroethane	ug/L	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16									6	< 0.16	< 0.16
1,1-Dichloroethene	ug/L	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19									6	< 0.19	< 0.19
1,2,4 Trimethylbenzene	ug/L	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26									6	< 0.26	< 0.26
1,2-Dichloroethane	ug/L	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14									6	< 0.14	< 0.14
1,2 Dichloroethene, trans	ug/L	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23									6	< 0.23	< 0.23
1,2-Dichloropropane	ug/L	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15									6	< 0.15	< 0.15
1,3,5 Trimethylbenzene	ug/L	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17									6	< 0.17	< 0.17
1,3 Dichloropropane	ug/L	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21									6	< 0.21	< 0.21
1,3-Dichloropropene, cis	ug/L	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23									6	< 0.23	< 0.23
1,3-Dichloropropene, trans	ug/L	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18									6	< 0.18	< 0.18
Methyl Ethyl Ketone (2-Butanone)	ug/L	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83									6	< 0.83	< 0.83
2-Chloroethylvinyl Ether	ug/L	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38									6	< 0.38	< 0.38
Acetone	ug/L	< 1.0	< 1.0	1.2	3.9	2.1	1.1									6	1.6	3.9
Acrolein	ug/L	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1									6	< 2.1	< 2.1
Acrylonitrile	ug/L	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3									6	< 3.3	< 3.3
Benzene	ug/L	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18									6	< 0.18	< 0.18
Bromoform	ug/L	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27									6	< 0.27	< 0.27

ArcelorMittal Burns Harbor
ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

INTAKE

PARAMETERS	Units	INTAKE														No. of Analyses	Average	Maximum
		5/5/2015	5/6/2015	5/13/2015	5/14/2015	5/18/2015	5/19/2015	7/14/2015	7/15/2015	7/21/2015	7/22/2015	7/28/2015	7/29/2015	8/4/2015	8/5/2015			
Carbon disulfide	ug/L	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26									6	< 0.26	< 0.26
Carbon Tetrachloride	ug/L	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16									6	< 0.16	< 0.16
Chlorobenzene	ug/L	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16									6	< 0.16	< 0.16
Chlorodibromomethane	ug/L	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22									6	< 0.22	< 0.22
Chloroethane	ug/L	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41									6	< 0.41	< 0.41
Dichlorobromomethane	ug/L	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30									6	< 0.30	< 0.30
Dichlorodifluoromethane	ug/L	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18									6	< 0.18	< 0.18
Ethylbenzene	ug/L	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15									6	< 0.15	< 0.15
Ethylene Glycol	mg/L	< 7.1		< 7.1	< 7.1	< 7.1	< 7.1									5	< 7.1	< 7.1
Methanol	mg/L	< 7.2		< 7.2	< 7.2	< 7.2	< 7.2									5	< 7.2	< 7.2
Methyl Bromide (Bromomethane)	ug/L	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37									6	< 0.37	< 0.37
Methyl Chloride (Chloromethane)	ug/L	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33									6	< 0.33	< 0.33
Methyl ter-butyl ether (MTBE)	ug/L	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11									6	< 0.11	< 0.11
Methylene Chloride	ug/L	0.57	0.53	< 0.31	< 0.31	< 0.31	< 0.31									6	0.29	0.57
Propylene Glycol	mg/L	< 2.1		< 2.1	< 2.1	< 2.1	< 2.1									5	< 2.1	< 2.1
Tetrachloroethene	ug/L	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32									6	< 0.32	< 0.32
Trichloroethylene	ug/L	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29									6	< 0.29	< 0.29
Trichlorofluoromethane	ug/L	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30									6	< 0.30	< 0.30
Toluene	ug/L	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15									6	< 0.15	< 0.15
Vinyl Chloride	ug/L	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17									6	< 0.17	< 0.17
Part C Parameters Semi-Volatile Organic Acid																		
2,4-Dichlorophenol	ug/L	< 1.1			< 1.1		< 1.1									3	< 1.1	< 1.1
2,4-Dimethylphenol	ug/L	< 1.1			< 1.1		< 1.1									3	< 1.1	< 1.1
2,4-Dinitrophenol	ug/L	< 1.3			< 1.3		< 1.4									3	< 1.3	< 1.4
2,4,6-Trichlorophenol	ug/L	< 1.0			< 1.0		< 1.1									3	< 1.0	< 1.1
2-Chlorophenol	ug/L	< 0.92			< 0.89		< 0.94									3	< 0.92	< 0.94
2-Nitrophenol	ug/L	< 1.2			< 1.2		< 1.2									3	< 1.2	< 1.2
4-Nitrophenol	ug/L	< 0.82			< 0.79		< 0.83									3	< 0.81	< 0.83
4,6-Dinitro-o-cresol	ug/L	< 1.1			< 1.1		< 1.1									3	< 1.1	< 1.1
Benzoic Acid	ug/L	< 0.51			< 0.50		< 0.50									3	< 0.50	< 0.51
p-Chloro-m-cresol	ug/L	< 0.92			< 0.89		< 0.94									3	< 0.92	< 0.94
Pentachlorophenol	ug/L	< 1.0			< 0.99		< 1.0									3	< 1.0	< 1.0
Phenol	ug/L	< 0.51			< 0.50		< 0.52									3	< 0.51	< 0.52
Part C Parameters Semi-Volatile Organic Base																		
1,2,4-Trichlorobenzene	ug/L	< 1.7			< 1.7		< 1.8									3	< 1.7	< 1.8
1,2-Dichlorobenzene	ug/L	< 1.7			< 1.7		< 1.8									3	< 1.7	< 1.8
1,2-Diphenyl hydrazine	ug/L	< 1.0			< 0.99		< 1.0									3	< 1.0	< 1.0
1,3-Dichlorobenzene	ug/L	< 1.9			< 1.9		< 2.0									3	< 1.9	< 2.0
1,4-Dichlorobenzene	ug/L	< 1.8			< 1.8		< 1.9									3	< 1.8	< 1.9
2-Chloronaphthalene	ug/L	< 1.3			< 1.3		< 1.4									3	< 1.3	< 1.4
2-Methylnaphthalene	ug/L	< 1.5			< 1.5		< 1.6									3	< 1.5	< 1.6
2,4-Dinitrotoluene	ug/L	< 1.0			< 0.99		< 0.99									3	< 0.99	< 1.0
2,6-Dinitrotoluene	ug/L	< 0.90			< 0.93		< 0.98									3	< 0.94	< 0.98

ArcelorMittal Burns Harbor

ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

INTAKE

PARAMETERS	Units	INTAKE														No. of Analyses	Average	Maximum
		5/5/2015	5/6/2015	5/13/2015	5/14/2015	5/18/2015	5/19/2015	7/14/2015	7/15/2015	7/21/2015	7/22/2015	7/28/2015	7/29/2015	8/4/2015	8/5/2015			
3,3'-Dichlorobenzidine	ug/L	< 1.3			< 1.3		< 1.4									3	< 1.3	< 1.4
Benzo [b] fluoranthene	ug/L	< 1.1			< 1.1		< 1.1									3	< 1.1	< 1.1
4-Bromophenyl Phenyl Ether	ug/L	< 0.82			< 0.79		< 0.83									3	< 0.81	< 0.83
4-Chlorophenyl Phenyl Ether	ug/L	< 1.0			< 0.99		< 1.1									3	< 1.0	< 1.0
Acenaphthene	ug/L	< 1.0			< 0.99		< 1.1									3	< 1.0	< 1.1
Acenaphthylene	ug/L	< 1.2			< 1.2		< 1.2									3	< 1.2	< 1.2
Anthracene	ug/L	< 0.92			< 0.89		< 0.94									3	< 0.92	< 0.94
Benidine	ug/L	< 0.20			< 0.20		< 0.21									3	< 0.20	< 0.21
Benzo (a) anthracene	ug/L	< 0.61			< 0.59		< 0.62									3	< 0.6	< 0.6
Benzo (a) pyrene	ug/L	< 0.82			< 0.79		< 0.83									3	< 0.81	< 0.83
Benzo (ghi) perylene	ug/L	< 0.92			< 0.89		< 0.94									3	< 0.92	< 0.94
Benzo (k) fluoranthene	ug/L	< 0.71			< 0.69		< 0.73									3	< 0.7	< 0.7
Bis (2-Chloroethoxy) Methane	ug/L	< 0.92			< 0.89		< 0.94									3	< 0.92	< 0.94
Bis (2-Chloroethyl) Ether	ug/L	< 1.7			< 1.7		< 1.8									3	< 1.7	< 1.8
Bis (2-Chloroisopropyl) Ether	ug/L	< 1.1			< 1.1		< 1.1									3	< 1.1	< 1.1
Bis (2-Ethylhexyl) Phthalate	ug/L	< 0.71			< 0.69		< 0.73									3	< 0.7	< 0.7
Butyl Benzyl Phthalate	ug/L	< 0.71			< 0.69		< 0.73									3	< 0.7	< 0.7
Chrysene	ug/L	< 0.82			< 0.79		< 0.83									3	< 0.81	< 0.83
Di-N-Butyl Phthalate	ug/L	< 0.61			< 0.59		< 0.62									3	< 0.6	< 0.6
Di-N-Octyl Phthalate	ug/L	< 0.82			< 0.79		< 0.83									3	< 0.81	< 0.83
Dibenzo (a,h) anthracene	ug/L	< 0.92			< 0.89		< 0.94									3	< 0.92	< 0.94
Dibenzofuran	ug/L	< 1.0			< 0.99		< 1.0									3	< 1.0	< 1.0
Diethyl Phthalate	ug/L	< 0.61			< 0.59		< 0.62									3	< 0.6	< 0.6
Dimethyl Phthalate	ug/L	< 0.82			< 0.79		< 0.83									3	< 0.81	< 0.83
Fluoranthene	ug/L	< 0.71			< 0.69		< 0.73									3	< 0.7	< 0.7
Fluorene	ug/L	< 1.3			< 1.3		< 1.4									3	< 1.3	< 1.4
Hexachlorobenzene	ug/L	< 1.3			< 1.3		< 1.4									3	< 1.3	< 1.4
Hexachlorobutadiene	ug/L	< 2.3			< 2.3		< 2.4									3	< 2.3	< 2.4
Hexachlorocyclopentadiene	ug/L	< 1.7			< 1.7		< 1.8									3	< 1.7	< 1.8
Hexachloroethane	ug/L	< 2.1			< 2.1		< 2.2									3	< 2.1	< 2.2
Indeno(1,2,3-cd) pyrene	ug/L	< 1.1			< 1.1		< 1.1									3	< 1.1	< 1.1
Isophorone	ug/L	< 0.92			< 0.89		< 0.94									3	< 0.92	< 0.94
N-Nitrosodi-N-propylamine	ug/L	< 1.3			< 1.3		< 1.4									3	< 1.3	< 1.4
N-Nitrosodimethylamine	ug/L	< 2.3			< 2.3		< 2.4									3	< 2.3	< 2.4
N-Nitrosodiphenylamine	ug/L	< 0.82			< 0.79		< 0.83									3	< 0.81	< 0.83
Naphthalene	ug/L	< 1.3			< 1.3		< 1.4									3	< 1.3	< 1.4

ArcelorMittal Burns Harbor
ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

INTAKE

PARAMETERS	Units	INTAKE														No. of Analyses	Average	Maximum
		5/5/2015	5/6/2015	5/13/2015	5/14/2015	5/18/2015	5/19/2015	7/14/2015	7/15/2015	7/21/2015	7/22/2015	7/28/2015	7/29/2015	8/4/2015	8/5/2015			
Nitrobenzene	ug/L	< 1.4			< 1.4		< 1.5									3	< 1.4	< 1.5
Phenanthrene	ug/L	< 0.71			< 0.69		< 0.73									3	< 0.7	< 0.7
Pyrene	ug/L	< 0.71			< 0.69		< 0.73									3	< 0.7	< 0.7
Styrene	ug/L	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14									6	< 0.14	< 0.14

Notes:

Italic results are based upon "J" values that are estimated concentrations between the MDL and the RL.

Bold Italic results are based upon non-detect values with ND = 1/2 the MDL.

E. Coli and Fecal Coliform averages are geometric means with ND = 1/2 DL.

ArcelorMittal Burns Harbor

ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

Receiving Water - East Branch of Little Calumet River, upstream of Outfall 001

PARAMETERS	Units	E. Branch Little Calumet Upstream of Outfall 001			No. of Analyses	Average	Maximum
		5/5/2015	5/14/2015	5/19/2015			
Silver	mg/L	< 0.00006	< 0.00006	< 0.00006	3	< 0.00006	< 0.00006

Note: Receiving water data for all other pollutants of concern are collected by IDEM through its ambient data collection program.

ArcelorMittal Burns Harbor

ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

Outfall 001 STORM EVENT SAMPLING

One grab sample collected and analyzed once per hour for four hours

	Outfall 001					
	7/7/2015					
	Units	Grab 1	Grab 2	Grab 3	Grab 4	Average
PART A PARAMETERS:						
Oil and Grease (hexane)	mg/L	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Biochemical Oxygen Demand (BOD)	mg/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Chemical Oxygen Demand (COD)	mg/L	9.6	12	10	9.6	10.3
Total Suspended Solids (TSS)	mg/L	1.2	2.8	2.8	3.6	2.6
Total Kjeldahl Nitrogen	mg/L	0.29	< 0.26	< 0.26	0.31	0.22
Nitrate + Nitrite as N	mg/L	0.22	0.22	0.23	0.21	0.22
Phosphorus (as P), Total	mg/L	0.13	0.11	0.097	0.10	0.11
PART B PARAMETERS: (pollutants in effective permit)						
Ammonia as N	mg/L	0.50	0.34	0.47	0.35	0.42
Fluoride	mg/L	0.77	0.73	0.68	0.71	0.72
Cyanide, Total	mg/L	< 0.002	< 0.002	< 0.002	0.0023	0.0013
Phenols, Total	mg/L	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
Copper, Total	mg/L	0.0025	0.0024	0.0023	0.017	0.0061
Lead, Total	mg/L	0.00095	0.00089	0.00091	0.0011	0.0010
Silver, Total	mg/L	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006
Zinc, Total	mg/L	0.0092	0.0098	0.0092	0.012	0.0101
Mercury, Total	ng/L	1.06	0.919	1.05	0.885	0.98
Iron, Dissolved	mg/L	0.014	0.014	0.016	0.015	0.015
Naphthalene	ug/L	0.034	0.035	0.033	0.031	0.033
Tetrachloroethene	ug/L	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032

Notes:

Italic results are based upon "J" values that are estimated concentrations between the MDL and the RL.

Bold Italic results are based upon non-detect values with ND = 1/2 the MDL.

ArcelorMittal Burns Harbor

ATTACHMENT 3: NPDES PERMIT RENEWAL APPLICATION SAMPLING RESULTS

Outfall 002 STORM EVENT SAMPLING

One grab sample collected and analyzed once per hour for four hours

Outfall 002						
7/7/2015						
	Units	Grab 1	Grab 2	Grab 3	Grab 4	Average
PART A PARAMETERS:						
Oil and Grease (hexane)	mg/L	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Biochemical Oxygen Demand (BOD)	mg/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Chemical Oxygen Demand (COD)	mg/L	< 9.2	< 9.2	< 9.2	< 9.2	< 9.2
Total Suspended Solids (TSS)	mg/L	1.2	2.8	2.8	3.6	2.6
Total Kjeldahl Nitrogen	mg/L	0.29	< 0.26	< 0.26	0.31	0.22
Nitrate + Nitrite as N	mg/L	0.22	0.22	0.23	0.21	0.22
Phosphorus (as P), Total	mg/L	0.059	0.077	0.066	0.064	0.067
PART B PARAMETERS: (pollutants in effective permit)						
Ammonia as N	mg/L	<0.10	0.12	0.13	0.12	0.11
Fluoride	mg/L	0.16	0.15	0.14	0.16	0.15
Cyanide, Total	ug/L	<0.002	< 0.002	< 0.002	< 0.002	<0.002
Phenols, Total	ug/L	<0.004	<0.004	<0.004	<0.004	<0.004
Copper, Total	ug/L	0.0013	0.0013	0.0012	0.0015	0.0013
Lead, Total	ug/L	0.00016	0.00008	0.00012	0.00014	0.00013
Silver, Total	ug/L	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006
Zinc, Total	ug/L	0.0043	0.002	0.0021	0.0021	0.0026
Mercury, Total	ng/L	0.396	0.534	0.715	0.543	0.547
Iron, Dissolved	mg/L	0.0083	0.0055	0.0053	0.0047	0.006
Naphthalene	ug/L	0.026	0.026	0.022	0.019	0.023
Tetrachloroethene	ug/L	<0.32	<0.32	<0.32	<0.32	<0.32

Notes:

Italic results are based upon "J" values that are estimated concentrations between the MDL and the RL.**Bold Italic** results are based upon non-detect values with ND = 1/2 the MDL.

ArcelorMittal Burns Harbor NPDES Permit Renewal Application
Attachment 4
Summary of Routine NPDES Permit Monitoring Data
March 2011 to April 2015

OUTFALL 001

Summary Statistics	Ammonia, mg/l		Copper, mg/l		Lead, mg/l		Oil and Grease, mg/l		Phenols, mg/l		Silver, mg/l		TSS, mg/l		Zinc, mg/l		Mercury, mg/l		pH	
	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Min	Max
Maximum	0.92	0.52	0.027	0.021	0.035	0.012	9.5	3.1	0.0220	0.0046	0.00014	0.00004	37	20.4	0.470	0.159	0.0000045	0.0000041	7.3	8.5
Average	0.27	0.27	0.011	0.011	0.003	0.003	1.3	1.4	0.0017	0.0020	0.00001	0.00001	6.9	6.9	0.036	0.034	0.0000010	0.0000009	NA	NA
Standard Deviation	0.15	0.11	0.004	0.003	0.004	0.002	1.1	0.6	0.0022	0.0012	0.00002	0.00001	5.0	3.1	0.049	0.025	0.0000012	0.0000010	NA	NA
Coefficient of Variation	0.57	0.43	0.37	0.27	1.03	0.73	0.81	0.46	1.26	0.64	1.08	0.64	0.72	0.46	1.37	0.73	1.20	1.18	NA	NA
No. Analysis	653	50	218	50	354	28	218	50	453	50	218	50	221	50	221	50	26	25	1076	NA
No. Non-Detect	60	NA	2	NA	180	NA	134	NA	431	NA	182	NA	1	NA	1	NA	5	NA	0	NA

OUTFALL 002

Summary Statistics	Ammonia, mg/l		Dissolved Iron, mg/l		Fluoride, mg/l		Lead, mg/l		Oil and Grease, mg/l		Phenols, mg/l		TSS, mg/l		Zinc, mg/l		pH	
	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Min	Max
Maximum	0.38	0.14	0.10	0.10	0.73	0.41	0.0046	0.0037	5.1	2.4	0.056	0.015	72	24	0.038	0.031	7.5	8.5
Average	0.07	0.07	0.01	0.01	0.15	0.15	0.0015	0.0014	1.2	1.2	0.002	0.002	9.5	9.4	0.013	0.013	NA	NA
Standard Deviation	0.06	0.03	0.02	0.02	0.08	0.05	0.0009	0.0006	0.8	0.4	0.005	0.003	8.7	5.1	0.007	0.006	NA	NA
Coefficient of Variation	0.83	0.41	1.83	1.83	0.51	0.36	0.59	0.42	0.71	0.39	2.14	1.15	0.91	0.54	0.55	0.49	NA	NA
No. Analysis	218	50	50	50	100	50	101	50	218	50	218	50	218	50	101	50	1072	NA
No. Non-Detect	107	NA	42	NA	5	NA	71	NA	152	NA	210	NA	1	NA	5	NA	0	NA

OUTFALL 011

Summary Statistics	Ammonia, mg/l		T. Cyanide, mg/l		Lead, mg/l		Oil and Grease, mg/l		Phenols, mg/l		TSS, mg/l		Zinc, mg/l		pH		Total Residual Chlorine	
	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Daily Data	Mo. Avg.	Min	Max	Daily Data	Mo. Avg.
Maximum	0.98	0.45	0.0380	0.0087	0.0630	0.0470	12.0	3.0	0.029	0.0072	96	11.2	1.2	0.260	7.1	8.7	0.15	0.043
Average	0.25	0.25	0.0018	0.0018	0.0039	0.0059	1.5	1.5	0.002	0.0025	6.0	5.8	0.031	0.031	NA	NA	0.011	0.011
Standard Deviation	0.16	0.11	0.0033	0.0015	0.0056	0.0076	1.3	0.4	0.003	0.0015	6.3	2.5	0.093	0.047	NA	NA	0.009	0.005
Coefficient of Variation	0.66	0.44	1.86	0.85	1.43	1.28	0.84	0.28	1.45	0.63	1.06	0.42	3.00	1.53	NA	NA	0.81	0.44
No. Analysis	653	50	218	50	358	50	653	50	453	50	677	50	657	50	1078	NA	649	50
No. Non-Detect	72	NA	186	NA	103	NA	327	NA	408	NA	12	NA	22	NA	0	NA	606	NA

Notes:

Non-detect values replaced with one half the detection limit for purposes of calculating averages, standard deviation and coefficient of variation.

Presentation of the summary statistics in this attachment is not an endorsement by ArcelorMittal of any particular method of calculating Projected Effluent Quality for reasonable potential considerations.

6 TABLE 1- DRAINAGE AREAS AND IMPERVIOUS SURFACES

TABLE 1A- DRAINAGE		
Outfall Designation	Latitude (N)	Longitude (W)
001	41°36'45"	87°08'50"
002	41°38'07"	87°08'51"
003	41°38'42"	87°07'38"

TABLE 1B – IMPERVIOUS SURFACES		
Description	Square Footage	Acres
Impervious		
Buildings	10,023,041	230
Paved Roads	2,011,680	46
Impervious Total	12,034,721	276
Pervious		
Unpaved Roads	1,789,920	41
Other pervious areas	160,416,039	3,683
Pervious Total	162,205,959	3,724
Total Burns Harbor Facility	174,240,680	4,000

7 TABLE 2- NON-STORM WATER DISCHARGE ASSESSMENT AND CERTIFICATION

TABLE 2- NON-STORM WATER DISCHARGE ASSESSMENT AND CERTIFICATION					
Date of Test Or Evaluation	Department observed during the test. (identified on the site map)	Method used to Test or Evaluate Discharge	Describe results from test for the presence of Non-Storm Water Discharge	Identify Potential Significant Non Storm water Discharge Sources	Name of person who conducted test or evaluation
August 8, 2011	Phoenix Services (Previously Levy)	Sanitary and Storm Sewer Map review. Dry Weather Observation	There are no Sanitary or Storm Sewers in the area.	No non-storm water discharges identified.	Max Chesebro, Diego Correa Magalhaes, Joyce Casillas, Pat Gorman
August 8, 2011	Beemsterboer	Sanitary and Storm Sewer Map review. Dry Weather Observation	There are no Sanitary or Storm Sewers in the area.	No non-storm water discharges identified.	Diego Correa Magalhaes, Joyce Casillas, Pat Gorman
August 8, 2011	Mid-Continent Coal & Coke	Sanitary and Storm Sewer Map review. Dry Weather Observation	Water percolates into the area.	No non-storm water discharges identified.	Carl Horst, Diego Correa Magalhaes, Joyce Casillas, Pat Gorman
August 11, 2011	Coke Plant	Sanitary and Storm Sewer Map review. Dry Weather Observation	There are Sanitary & Storm Sewers in the area. There was ponding from recent storm event.	No non-storm water discharges identified.	Mike Corbett, Diego Correa Magalhaes, Joyce Casillas
August 17, 2011	Iron Producing	Sanitary and Storm Sewer Map review. Dry Weather Observation	There are Sanitary & Storm Sewers in the area.	No non-storm water discharges identified.	Lenny Smock Diego Correa Magalhaes, Joyce Casillas, Pat Gorman
August 26, 2011	Steelmaking – BOF	Sanitary and Storm Sewer Map review. Dry Weather Observation	There are Sanitary & Storm Sewers in the area.	No non-storm water discharges identified.	Greg Stone, Diego Correa Magalhaes, Joyce Casillas, Pat Gorman
August 31, 2011	Plate Mills	Sanitary and Storm Sewer Map review. Dry Weather Observation	There are Sanitary & Storm Sewers in the area.	No non-storm water discharges identified.	A.J. Dransoff, Bryan Milosoff, Diego Correa Magalhaes, Joyce Casillas, Pat Gorman
September 1, 2011	Hot Strip Mill	Sanitary and Storm Sewer Map review. Dry Weather Observation	There are Sanitary & Storm Sewers in the area.	No non-storm water discharges identified.	Billi McDowell, Diego Correa Magalhaes, Joyce Casillas, Pat Gorman
September 22, 2011	Steelmaking – Caster	Sanitary and Storm Sewer Map review. Dry Weather Observation	There are Sanitary & Storm Sewers in the area.	No non-storm water discharges identified.	Eric Black, Diego Correa Magalhaes, Joyce Casillas, Pat Gorman
September 23, 2011	Cold Strip Mill (Finishing)	Sanitary and Storm Sewer Map review. Dry Weather Observation	There are Sanitary & Storm Sewers in the area.	No non-storm water discharges identified.	Tim Case, Diego Correa Magalhaes, Joyce Casillas, Pat Gorman

TABLE 2- NON-STORM WATER DISCHARGE ASSESSMENT AND CERTIFICATION

Date of Test Or Evaluation	Department observed during the test. (identified on the site map)	Method used to Test or Evaluate Discharge	Describe results from test for the presence of Non-Storm Water Discharge	Identify Potential Significant Non Storm water Discharge Sources	Name of person who conducted test or evaluation
September 29, 2011	SMS	Sanitary and Storm Sewer Map review. Dry Weather Observation	There are no Sanitary or Storm Sewers in the area.	No non-storm water discharges identified.	Pat McCafferty, Diego Correa Magalhaes, Joyce Casillas, Pat Gorman
October 7, 2011	Indiana Flame	Sanitary and Storm Sewer Map review. Dry Weather Observation	There are Sanitary & Storm Sewers in the area.	No non-storm water discharges identified.	Hernan Gudino, Diego Correa Magalhaes, Joyce Casillas, Pat Gorman
October 10, 2011	PSC Metals	Sanitary and Storm Sewer Map review. Dry Weather Observation	There are no Sanitary or Storm Sewers in the area.	No non-storm water discharges identified.	Steve Forystek, Diego Correa Magalhaes, Joyce Casillas,
October 11, 2011	Power & Utilities	Sanitary and Storm Sewer Map review. Dry Weather Observation	There are Sanitary & Storm Sewers in the area.	No non-storm water discharges identified.	Paul Eppolito, Diego Correa Magalhaes, Joyce Casillas, Pat Gorman
November 30, 2011	Oil Technology	Sanitary and Storm Sewer Map review. Dry Weather Observation	There are Sanitary & Storm Sewers in the area.	No non-storm water discharges identified.	Pat Gorman
December 12, 2011	Y&T	Sanitary and Storm Sewer Map review. Dry Weather Observation	There are Sanitary & Storm Sewers in the area.	No non-storm water discharges identified.	Robert Rogers, Joyce Casillas, Julee VanderSluis
December 16, 2011	Fritz, Inc.	Sanitary and Storm Sewer Map review. Dry Weather Observation	There are no Sanitary or Storm Sewers in the area.	No non-storm water discharges identified.	Will Thomason Diego Correa Magalhaes, Joyce Casillas,

Certification

I, Patrick M. Gorman (responsible official), certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official Title

Patrick M. Gorman, P.E.

B. Area Code and Telephone No.

(219) 836-1000

C. Signature

D. Date Signed

February 24, 2012

APPENDIX A

APPENDIX A - LIST OF WATER TREATMENT ADDITIVES & CHEMICALS

APPENDIX A
LIST OF WATER TREATMENT CHEMICALS
ARCELORMITTAL BURNS HARBOR NPDES PERMIT RENEWAL APPLICATION
AUGUST 2015

#1 Caster Machine

Nalco 3DT179 – Corrosion Inhibitor
Nalco 3DT190 – Scale Inhibitor
Nalco 3DT185 – Corrosion Inhibitor
Bleach – Microbiological Control
Nalco CB70 – Microbiological Control

#1Caster Spray

Nalco 3DT179 – Corrosion Inhibitor
Nalco 3DT190 – Scale Inhibitor
Nalco 3DT185 – Corrosion Inhibitor
Bleach – Microbiological Control
Nalco CB70 – Microbiological Control
Nalco ST-70 – Microbiological Control
Nalco 8103Plus – Filter aid
Nalco 8735 – Alkalinity Control

#1 Caster Mold

Nalco 8338 – Corrosion and Scale Control
Nalco TRAC113 – Corrosion and Scale Control
Nalco ST70 – Microbiological Control
Nalco 7320 – Microbiological Control
Nalco 7330 – Microbiological Control

#2 Caster Mold Evaporative Cooling Tower

Nalco 3DT179 – Corrosion Inhibitor
Nalco 3DT190 – Scale Inhibitor
Nalco 3DT185 – Corrosion Inhibitor
Bleach – Microbiological Control
Nalco CB70 – Microbiological Control

#2Caster Spray

Nalco 3DT179 – Corrosion Inhibitor
Nalco 3DT190 – Scale Inhibitor
Nalco 3DT185 – Corrosion Inhibitor
Bleach – Microbiological Control
Nalco CB70 – Microbiological Control
Nalco ST-70 – Microbiological Control

**APPENDIX A
LIST OF WATER TREATMENT CHEMICALS
ARCELORMITTAL BURNS HARBOR NPDES PERMIT RENEWAL APPLICATION
AUGUST 2015**

Nalco 8103Plus – Filter aid
Nalco 8735 – Alkalinity Control

#2 Caster Emergency Tower
Nalco ST70 – Microbiological Control

#2 Caster Mold
Nalco 8338 – Corrosion and Scale Control
Nalco TRAC113 – Corrosion and Scale Control
Nalco ST70 – Microbiological Control
Nalco 7320 – Microbiological Control
Nalco 7330 – Microbiological Control

Power Station
Nalco Nexgaud 22300 – Internal Boiler Treatment
Nalco 750 – Boiler Antifoam
Nalco 1805 – Neutralizing Amine
Nalco 1720 – Oxygen Scavenger
Nalco 2 – Anionic Coagulant
Nalco Nalclean 7763 – Anionic Flocculant
Nalco BLR3715 – Lime Slurry Treatment
Nalco 8940 – Acidic Cleaner
Solar Salt - Regeneration
Dolomitic Lime - Precipitation

Continuous Heat Treat Line
Nalco 3DT288 – Corrosion and Scale Control
Nalco 7346 – Microbiological Control

Hot Dip Coating Line
Nalco 3DT288 – Corrosion and Scale Control
Nalco 7346 – Microbiological Control
Nalco 8338 - Corrosion and Scale Control
Nalco 7320 – Microbiological Control
Nalco 41 – Corrosion Inhibition

APPENDIX A
LIST OF WATER TREATMENT CHEMICALS
ARCELORMITTAL BURNS HARBOR NPDES PERMIT RENEWAL APPLICATION
AUGUST 2015

Coke Plant

- Nalco 7709 - Dispersant
- Nalco 8131 – Emulsion Breaker, Ferric Chloride
- Nalco 7719 – Emulsion Breaker
- Nalco 8735 – pH/alkalinity control
- Nalco 9961 – Emulsion Breaker

Blast Furnaces

- Nalco 71305 - Flocculant
- Nalco 8316 – H₂S Scavenger
- Nalco 8357 - Dispersant
- Magnesium Hydroxide – pH/alkalinity control

Sinter Plant

- Nalco 5200M – Scale Inhibitor
- Nalco 1392 – Scale Inhibitor

Main Office

- Nalco 8338 – Corrosion and Scale Control
- Nalco 3DT288 – Corrosion and Scale Control
- Nalco 7320 – Microbiological Control

Waste Ammonia Liquor Pump Station

- Nalco 71305 – Cationic Flocculant
- Nalco 8187 - Cationic Coagulant
- Nalco 7320 – Microbiological Control

Oil Separation

- Nalco 7680 – Retention Aid/Coagulant
- Nalco 7308 –Oil and Grease Dispersant

Reclamation Services Building

- Nalco 7763 – Anionic Coagulant
- Nalco 8100 – Cationic Coagulant
- Magnesium Hydroxide – pH Control

**APPENDIX A
LIST OF WATER TREATMENT CHEMICALS
ARCELORMITTAL BURNS HARBOR NPDES PERMIT RENEWAL APPLICATION
AUGUST 2015**

Secondary Waste Treatment Plant

- Nalco 7763 – Anionic Coagulant
- Nalco 8157 – Cationic Coagulant
- Nalco 71301 – Cationic Flocculant
- Nalco 71325 – Anionic Flocculant
- Nalco 7192 – Cationic Emulsion Breaker
- Nalco 7341 – Microbiological Control

BOF

- Nalco 7763 – Anionic Coagulant
- Nalco 1392 – Scale Inhibitor
- Nalco 7385 – Scale Inhibitor
- Nalco 8338 – Corrosion and Scale Inhibitor
- CO2 – pH Control
- Nalco 8357 – Dispersant
- Nalco 22359 – Internal Boiler Treatment
- Nalco 22300 – Internal Boiler Treatment

Vacuum Degasser

- 1392 – Scale Inhibitor

Plant

- Bleach – Zebra Muscle Control
- Nalco 7408 - Sodium Bisulfite Chlorine Scavenger